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The Art Bulletin

AN ILLUSTRATED QUARTERLY PUBLISHED BY THE

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Of America

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TO
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PREPARED BY MILDRED MORSE.

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COLLEGE ART ASSOCIATION OF AMERICA

With the present number the College Art Association begins the quarterly publication of its bulletin. For several annual meetings the establishment of a quarterly magazine has been recommended by the Committee on Publications and this action has been especially urged by ex-President Pickard and President Robinson. In accordance with the recommendation set forth by Professor Pickard in his last presidential address a resolution authorizing the immediate inauguration of this quarterly was adopted. College Art Association material may be sent to the President or Secretary. Contributions of scholarly interest and books for review are particularly invited.

The four annual bulletins already published by the Association are to be taken as constituting Vol. I. Henceforward an annual volume of four numbers will be issued. This number, dating September, 1919, is therefore given the serial numbering Vol. II, No. 1.

Members of the College Art Association receive the Art Bulletin.

Sustaining membership is open to all; the annual fee is ten dollars.

Associate membership, or subscription to the Art Bulletin, is open to all; the annual fee is three dollars.

Active membership is open to those engaged in art education; the annual fee is three dollars.

Of previous bulletins Nos. 2, 3, and 4 are still available; the price of the series is five dollars.

Address all communications to

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The Future of the College Art Association

by JOHN PICKARD

(President's address at the Eighth Annual Meeting, New York,
May 12, 1919.)

FOR the fifth time I have the pleasure of appearing before you to deliver the annual address of the President.

The meetings of this association over which I have had the honor to preside were held in 1915 in the Albright Art Gallery, in Buffalo; in 1916 at the University of Pennsylvania in Philadelphia; in 1917 in connection with the University of Cincinnati and the Museums Association, in Cincinnati; in 1918 in the Metropolitan Museum, New York. In 1919 we return to the Metropolitan in order that we may offer to our members the advantages afforded by the American Federation of Arts, which will convene in the Museum in the days immediately following our own meeting.

During these years our membership roll has greatly lengthened until it now contains some 220 names. The attendance upon our annual sessions in spite of war conditions has constantly and steadily increased. The papers and discussions have been of ever greater interest and importance.

For the Buffalo meeting, owing to the bankrupt state of our treasury, we could only send out a mimeographed summary of the proceedings. For the Philadelphia meeting we printed a 32-page bulletin (No. 2 of our series) containing a brief resumé of some of the papers presented with a statement of the periodicals in which the other papers might be found printed in full. Bulletin No. 3 contains a complete report of the Cincinnati meeting with all the papers then presented. Bulletin No. 4, the largest and best of the series, contains all the papers and a full account of the New York meeting of last year.

Through all these years much valuable committee work has been done. It will not be invidious to mention three committees. One committee with Professor Pope as chairman has ready for publication a very important bibliography of books for the College Art Library. Another committee with Professor Robinson as chairman is making from year to year valuable suggestions concerning "Reproductions for the College Museum and Art Gallery." Conditions pertaining to war have seriously impeded the work of Professor Smith's Committee on "Investigation of Art Education in American Colleges and Universities." Still, the foundation of the work has been laid, and arrangements have been completed whereby the investigations of this committee will receive the strong support of the National Bureau of Education.

As the years have passed, our vision has grown clearer and our sympathies broader. We have learned that we must coördinate the art work in colleges and universities with the educational work in our museums and art galleries. We have discovered that this association is vitally interested in the art work of high schools, grammar schools, grade schools, primary schools, and kindergartens. We have found that every movement for civic art should receive our earnest support. We have become convinced that we, as members of the College Art Association of America, are vitally concerned with art as it appears or fails to appear in all the avenues of national, state, and civic life; we have come more thoroughly to know that for every citizen of the Great Republic art is not a luxury but a necessity. More and more clearly do we perceive that the neglect of art in our system of education from the kindergarten to the graduate school is a criminal neglect.

By this last I mean not only that every child should, as a matter of course, learn to draw; that every pupil looking towards a vocation should receive that art training which will best fit him for his career; that every student should possess that increased keenness of vision and that added power of discrimi-

nation which come with technical art training of eye, of hand, and of brain. I mean more than all this. The most precious half of education is that which shall put our youth in possession of the great heritage of the past. Among the records of bygone ages the most valuable, stimulating, and truly educational are the mighty monuments of the art of the men who have lived before us. Familiar acquaintance with the most important of these should be the inalienable right of every child in American schools. It is my belief that no teacher of any subject taught in our schools is capable of doing his best work for his pupils unless he himself possess such knowledge and culture as will enable him to serve as a guide in the appreciation and understanding of the works of art which most splendidly set forth the creative genius of our race. No school or system of schools should meet with the approval of any superintendent if it does not send out teachers who have both knowledge and appreciation of art. For I believe in the universality of art, that art is universal and universally necessary.

Each year, when I, as President, have addressed you, I have stressed the importance of the work which this association has to do—not that there are honors that we should claim by virtue of the fact that we represent institutions of higher learning; but that there is a great, unselfish and devoted service that we as disciples of art, should strive to render in the great cause of universal education as well as in the various institutions at which we are employed.

But now in this tremendous period of reconstruction after the Great War we are confronted with a task the magnitude of which we did not dream of one short year ago. If America is to succeed in the commercial struggle that is already upon us, she will succeed by virtue of the sound development of American artists and American art in the next decade. Here is a great problem that the College Art Association of America should help to solve.

But how shall we reach the eye and the ear and penetrate the understanding of those in authority, of

Trustees, Presidents, and Faculties? How shall we influence students and laymen? How shall we persuade them all to accept this fundamental truth, that in the entire range of the curriculum there exists no other subject so universal in its interest, so absolutely necessary for a rounded education, so entirely practical in its application to the daily life of all men, as is this subject of art?

We have been meeting once a year. We have read to our colleagues excellent papers. We have printed these papers in our bulletins and we have sent these bulletins to our members. We have placed them in some of the libraries of the land, where for the most part they repose in dignified seclusion. Our meetings have been of much interest and value to those who attend. But how far have we gone in the way of reaching the great outside world? Not very far, I fear. The one great, crying, insistent need of this association today is an adequate means and method of carrying on our propaganda, of teaching our members, of influencing educators, of convincing the multitude. This propaganda cannot be made effective by a bulletin issued once a year, even though it contains notable papers on important questions.

We must have a periodical of our own, issued at first quarterly, ably edited, with trenchant articles by strong men, with departments of news and notes on all questions of interest in art education. No existing magazine is or can become what our cause needs. No existing periodical will or can do the work that is incumbent on us to perform. Our own editors must decide what we will publish and this organization alone must dictate the policy of our publication.

Ah! but you say, the MONEY!

Since we began the publication of a bulletin worthy of this association there has been a steadily increasing demand for this bulletin. Under the able management of our efficient secretary our work has, during the past year, gone steadily forward. We are but in the beginning of that which may be accomplished in

the way of securing subscriptions and adding to membership.

Last year we provided for a new class of members at \$10.00 a year. At present we have some sustaining members. We can have more for the asking. We cannot now, of course, pay salaries to editors, writers, or workers. But this does not disturb me. For during the past five years your President has for weeks at a time given from one fourth to one half of his entire time to carrying on the work of this association.

We have in our membership strong executives, experienced publishers, capable editors, and attractive writers. We have now reached that stage in our development when we can support a periodical.

I therefore recommend that the Association at this meeting instruct the President and Board of Directors to take the necessary steps to publish the Bulletin as a quarterly during the coming year, with the purpose of issuing it as a monthly as soon as practicable.

The Sources of Romanesque Sculpture

by CHARLES R. MOREY

(Presented at the Eighth Annual Meeting, New York,
May 12, 1919.)

FRENCH Romanesque sculpture develops in three periods: a primitive period corresponding roughly to the first quarter of the twelfth century; a second phase marked by baroque exaggeration during which the prevailing styles are those of Languedoc and Burgundy, covering the second third of the century; and lastly the style of Ile-de-France, which assimilates and refines the eccentricities of Languedoc and Burgundy, reduces the figure to a logical harmony with Gothic architecture, and finally supplants the older styles throughout the whole of France.

This paper aims to show the influence of manuscript illumination on the first two phases of Romanesque. Such an influence has already been suggested for the second, or baroque phase, and indeed it is hardly possible to deny it when one compares such a figure as the prophet of Souillac (Pl. I, fig. 1), a fair example of the developed style of Languedoc, with the pen drawings of manuscripts of the eleventh century (Pl. I, fig. 2). The contortion of the body, the whirling draperies, the restless stance, the deep undercutting which provides a rhythm of light and shade, together with the general resemblance of the figure to the angel in the miniature who locks the gate of Hell—all show a remarkable surrender on the part of the sculptor of plastic values in return for those of line and color. The same pictorial style is found in the Burgundian work of Vézelay; here we have sometimes the lyric line of Languedoc, and sometimes a contrast of broadly hatched and lighted surfaces with deep holes of shadow which produces the effect of a painted miniature.

It seems to me therefore that Mr. A. Kingsley Porter, who tells us in a recent article on Romanesque

sculpture that "archaeology has been unable to account" for this pictorial style in Burgundy and Languedoc, is making mediaeval art more mysterious than need be. This and other phenomena of mediaeval style become intelligible when viewed in the light of one fact that is gradually becoming recognized, viz., that the guiding influence in the evolution of mediaeval art was always the manuscript illumination.

The chief alternative theory as to the source of Romanesque sculpture is that which would derive the style from ivory carving. The theory has in its favor that the ivories represent about all we have in the way of a consistent practice of sculpture in the period preceding the twelfth century, and would therefore afford a natural starting point for the enterprising stone sculptors of the Romanesque period. But one finds on investigation that the style of the ivories does not explain in all respects that of the carvings in stone.

Take for example an early Languedoc work, the Christ on the choir screen of St. Sernin at Toulouse (Pl. II, fig. 3). If we compare this figure with the Christ of an ivory plaque in the Museum at Orléans (Pl. II, fig. 4), the resemblance of structure is indeed striking; both figures show peculiar, undulating locks of hair, a grotesque pot-belly, and lack of articulation between the torso and the legs. There is one thing however which the ivory lacks, and it happens that this one thing is the most characteristic feature of Languedoc sculpture early and late, viz., the double lines that divide the drapery into a semblance of overlapping folds. But if we turn to a late Carolingian manuscript of the school of Tours, we find in the figure of the evangelist Mark (Pl. II, fig. 5) a fair parallel to the relief of St. Sernin in hair, pot-belly, and unattached legs; and we also find the essential double lines in the drapery which mark the technique of the stone sculptor, as well.

In fact, the more one studies mediaeval ivories, the more one is struck by their imitative character. We find in them the reflection, not the genesis of style. The Carolingian ivories are mostly copies, either of

late classic works in the same material, or of contemporary manuscripts. In a plaque at Zurich, (Pl. III, fig. 6), for example, we find an abbreviated replica of the illustration of Psalm XXVII as it appears in the Utrecht Psalter (Pl. III, fig. 7). The same relation to manuscripts is evident in the later ivory-styles, and while, of course, we seldom get so close an imitation as in the case just illustrated, the parallel between the mother art and the ivory imitations is so close that Goldschmidt in his recent work on the ivories of the ninth and tenth centuries was able to classify them entirely on the basis of the manuscript schools whose styles they follow. The ivories, then, so far from being the models of the stone sculptors, are better considered as the coördinate offspring of the mother-art of miniature painting.

And, really, when one comes to think of what comprised the artistic stock-in-trade of these Romanesque sculptors, it is clear that their visualizations must have been determined mostly by the illuminations of the manuscripts. The number of ivories preserved in the monasteries of the twelfth century could not have been large. Ivories are not easily destroyed; and yet how few are known to antedate the twelfth century! Manuscripts, on the other hand, and illuminated ones at that, were everywhere at hand; as Beissel says, the smallest church could not conduct its services with less than three—a Psalter, a Gospel Book, and a Sacramentary. It seems to me, therefore, that a derivation of Romanesque sculpture from the manuscript styles is to be predicated from the general conditions surrounding the rise of Romanesque art, even if direct proof were not forthcoming. We have already seen that the figure style of Languedoc shows the influence of pen-drawing to an extent that cannot be due to coincidence.

Attention may now be called to the relation of a certain style of illumination with another phase of Romanesque sculpture, which appears in France in early works of Burgundy and the valley of the Loire, but is best known in its Italian variant, where it goes under the name of Lombard.

To make this relation clear, I must first ask you to consider for a moment the evolution of illumination up to the twelfth century. In the Carolingian period we have a number of schools, more or less distinguishable, but toward its close these various schools begin to coalesce into two main artistic currents. One of these is represented by the famous Utrecht Psalter (Pl. III, fig. 7), whose illuminator, however much he was indebted to classic models, succeeded in transforming them to the point of producing something never seen before. His style, in fact, marks the beginning of modern art in that it introduces as a prime factor for the first time that emotional element which distinguishes the modern from the classic. His pages are swept by feeling; every figure, even if conceived as standing still, is yet galvanized into a sort of ecstatic pirouette by swirling drapery. When movement is represented, the action becomes violent; the heads are thrust forward from the shoulders with an earnestness that is grotesque and yet convincing; even the ground-line heaves and rolls in the general hurricane of emotion.

This style, centering at first in what we call the school of Reims, gradually draws into its scope the other schools of France—the Franco-Saxon school, the school of Tours, and the school of Corbie—losing in the meantime some of its freedom and casting its expressive movement into more conventional moulds. By the eleventh century it dominates the drawing of France and England, reaching a high grade of freshness and originality in the island kingdom, while in France, and particularly in Northern France, we find it more soberly employed as in a Gospel of the Library at Boulogne or in the *Liber Vitae* (Pl. I, fig. 2). It always retains, however, its qualities of expressiveness and of restless line, and these we have seen that it communicated to the developed styles of Romanesque sculpture in Languedoc and Burgundy.

The other style began in the Carolingian period in what we call the Ada group of manuscripts, so called after a putative sister of Charlemagne for whom one of the manuscripts of the group was written. This

style, developing under the patronage of a court whose worship of the late classic was fanatic, not only tries to reproduce the letter of its models, but makes a desperate attempt to reach the spirit as well (Pl. IV, fig. 8). The result is that, as time goes on, it swings away from the linear style of Reims and of the Utrecht Psalter, and evolves a plastic quality that is not at all unlike the late classic and proto-Byzantine models that it strove to imitate. Thus in phases like that illustrated by the Codex Egberti (Pl. IV, fig. 9) we find pictures much resembling proto-Byzantine manuscripts of the sixth century, and there is always in the style a lack of movement in figure and drapery, a flatness in the treatment of planes, a heaviness of proportions, which contrast sharply with the exuberant calligraphy of the drawings we have seen in the Utrecht Psalter (Pl. III, fig. 7) and its descendants. A definite peculiarity may be found also in the curious flapper-like feet, on which the figures try to stand.

This style developed in the valley of the Rhine. Just where its center was in the 9th century we do not know, but in the tenth it lay in the abbey of Reichenau on Lake Constance, whence it spread in the course of the eleventh century throughout the monasteries of Germany, and also into the Low Countries, where it met and made some curious mixtures with the linear style of France and England. In the twelfth century it followed the route of trade and political relations from Germany into North Italy, for there can be little doubt, it seems to me, that in this German style of illumination we have the source of Lombard sculpture. Guglielmus, who tells the story of Genesis with such crude power on the façade of Modena cathedral (Pl. IV, fig. 10), his pupil Nicholas, and all the rest of the school down to Benedetto Antellami of the end of the twelfth century, show in all their work the same heavy figures, the same flapper feet, the same reserve in movement, the same formula of drapery, the same adherence to plane instead of line—in a word, the same plastic quality that differentiates their work from the sculp-

ture of Languedoc and Burgundy that inherited the lyric movement of the linear style of illumination.

The plastic style is not confined to North Italy. It made its way into Eastern France, and we find it established in Burgundy at a date before the creation of the linear style of Vézelay. Its best example here is found in the choir capitals of St. Martin d'Ainay at Lyons, which date from the consecration of the church in 1106. Here we find the same adherence to plane, and the same crude and heavy figure style, albeit with a certain French accent, which one finds also in the sculptures of Guglielmus. But as we pass to the capitals of the nave, evidently by a later hand, we are already in the presence of the leaf-work, the undercutting, the long faces with drilled pupils, and the general coloristic effect of Vézelay. In this one church, therefore, one can see the passing of the German style and the entry of the new Burgundian sculpture.

The plastic style extended also down the valley of the Loire and left examples in many early capitals of this region, as well as in later examples like those from Ile-Bouchard. Not much of it is found in France, because most of the Romanesque churches received their decoration in the middle of the twelfth century, when the new lyric art of Languedoc and Burgundy had given more adequate expression to the emotion which filled the soul of proto-Gothic France. It may be, in fact, that the rare examples of the style are due to itinerant Lombard workmen, and that the style was an importation into France from North Italy. In any case, its ultimate source seems to me to have been the miniatures of the Rhine.

To test the accuracy of this derivation, I asked a graduate student, Mr. Robert O'Connor, to trace the history of a motif of ornament which happens to be peculiar to the Romanesque sculpture of the regions just mentioned, i. e., North Italy and the valley of the Loire. Mr. O'Connor's results will be published shortly, and I shall here only allude to that portion of his work which affects our problem. The value of the motif as a test lies in the fact that for an ornamental motif its use is unusually circumscribed. It never appears in

sculpture till the twelfth century, and then only in the regions mentioned, being absent from the ornamental alphabet of Normandy, England, and Languedoc, and never occurring in the ivories. But in Burgundy and the valley of the Loire it is very popular in the twelfth century, and all the Lombard sculptors use it, both early and late, and everywhere they go; I found one example in some Lombard work in Dalmatia. It is a variation of the double-axe motif sometimes found in Roman mosaics, and is very obviously not a natural invention for a stone-carver. Guglielmus uses it as a convention for water (Pl. IV, fig. 10), but its commonest employment is as a decoration for colonnettes, as is the case at Bourges.

Now when Mr. O'Connor undertook to trace the ornament back to its source, the path led him immediately into illumination and nowhere else. In illumination, moreover, the ornament is confined to the Rhenish style (Pl. IV, fig. 8) in the eleventh and tenth centuries, and he finally found its mediaeval starting point in the miniatures of the Ada-group of manuscripts, wherein we found the ultimate source of the Lombard figure style.

The sources, then, of the two most important styles of Romanesque sculpture, the linear style of Burgundy and Languedoc and the plastic style of the Lombard school, are to be sought in the two dominant styles of illumination which these Romanesque sculptors knew, the one prevailing in France and England, a linear style, expressive and baroque, the other flourishing in the valley of the Rhine, and retaining in its self-contained figures a remnant of classic form. This is all my note is intended to convey, save perhaps that it may serve to show the importance of the study of illumination for any real understanding of mediaeval styles. Illumination is the only art that has a continuous evolution throughout the Middle Ages; architecture often fails us, fresco-painting has huge gaps in its history, figure sculpture in stone is a lost art for whole centuries and is often sadly to seek in the ivories, but the illuminated book is always there to bridge the gaps. To paraphrase a good old Latin tag: "*littera picta manet.*"

The Significance of Oriental Art

by ANANDA COOMARASWAMY

(Presented at the Eighth Annual Meeting, New York,
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THE "influence" of Oriental art on modern Western art is a potent fact and may be detected alike in painting and sculpture, music, dancing, costume and handicraft. This influence has been, for the most part, pernicious—little more significant than the imitation of mannerisms in response to a demand for the exotic, quaint, and mysterious. For those for whom the actual East is too strong meat, the quasi-Oriental draperies and pseudo-Oriental dance and the "Chinoiseries" of a few painters have provided—a new sensation.

Those who look upon the East as mysterious and romantic have only themselves to thank for the creation of a novel unreality. What is romantic and mysterious to a foreigner is classic and self-evident to a native; and no one can be said to understand the art of the East or any other art so long as it remains to him a curiosity—only when he sees that it must have been as it is, does he begin to understand. He will see then that it does not represent a fine accomplishment or something undertaken for fun, but expresses an entire mentality and racial inheritance. Through it he may learn the better to understand the unfamiliar faith, but how can he through its formulae express *himself*, or "stand in his own place in his own day here?"

If Oriental art as a complete and fixed expression—in truth, a dead language, having received its last and mortal wounds at the hands of Western industrialism and diplomacy—has no more value for the artist than for other men, however great this common importance (as expressing the heart and mind of the East) may be, we may proceed to ask what particular significance the late "discovery of Asia" may have for Western artists. Here we come at once upon the solid ground

of Asiatic psychology and criticism: for the East is able to remind us of many things that are important in the genesis of art. It is rather the teacher of art and art appreciation, than the practising artist, who should study Oriental art—the latter, should he even visit the Orient in person, will find the living man more marvellous than any ancient monument.

“The forms of images,” says Sukracharya, an Indian critic, “are determined by the relation that subsists between adorer and adored.” Although in theological language, this is a perfectly general statement of how it is that a work of art assumes just that particular form it comes to have: the adorer is the artist, the adored is the theme, the image is the work of art. Without a relation of necessity between the artist and his theme, there is nothing to express, and consequently, the result cannot be a work of art. No genuine form can be created without there having been profound reasons for its existence: style is determined by what we have to say and not by arbitrary or fanciful choice. I do not condescend to discuss the opportunity that still remains for illustration. In the common case the artist has nothing to say; I take it for granted that the distinction between illustration and expression needs no emphasis.

The essential problem of the artist is to see or hear the form of his intuition sufficiently clearly: as Blake expresses it, “He who does not imagine in stronger and better lineaments, and in stronger and better light, than his perishing mortal eye can see, does not imagine at all!” In genuine art, whether visionary or realistic, there is nothing vague or indefinite—“the want of this determinate and bounding form evidences the idea of want in the artist’s mind, and the pretence of plagiarism in all its branches.” In Western schools of art the teaching is directed solely to the acquisition of manual skill, and yet we all know that the art of a modern, while it is not necessarily inferior to that of a Giotto, is not necessarily superior merely because of the knowledge of perspective and anatomy it reveals. No manual dexterity or analytical knowledge can compensate for

the original deficiency of visualization. And it is precisely in the cultivation of this power—partly as the result of the practise of drawing always from stored memories rather than from still life (the posed model, from this point of view, is but little superior to the plaster cast), but still more from the regular practise of visualization, alike in the private practise of religion and in the artist's preparation for any work he may undertake—that the East, and particularly India, has something of importance for Western artists. To put the idea very simply, the true work of creation must be completed before the brush or pen is put to paper; and what is of most importance from every point of view is the reality of the original creation. If this is to be vital, the artist must be preoccupied, saturated with, or, as we should say in India, identified with, his subject; and if not so it will not be worth while for him to take up his tools. In schools of art, from the very beginning, at least as much time should be devoted to drawing from imagination or memory as to studying forms objectively present. At present, almost all children possess a greater or less degree of creative imagination, which is destroyed as soon as they are taught that it is more important to draw accurately than to draw expressively. The training in accuracy, however necessary, should be patently subordinated to the cultivation of imagination (I speak, let me say again, always of art, and not of illustration). Moreover, the meaning of "accuracy" for an artist should be carefully explained: Leonardo very wisely remarks that that drawing is best which best expresses the passion that animates a figure; and as we have learnt anew through the courage of infinitely serious modern artists like Cezanne—a far more significant figure than any living painter east of Suez—the expression of dominant ideas may often demand an exaggeration or distortion of normal form. That this should be so is a psychological necessity, for every movement of the spirit has a corresponding physical gesture and for every emotion there must be set up a corresponding strain in the physical vehicle. Strains of this kind are not so simply to be

expressed as in merely muscular reaction. There are many drawings demonstrably "incorrect" which could not be "better drawn." That even teachers of art concur in this view is demonstrated by their respect for old masters; it is not commonly held that the paintings of Giotto or the Ajanta frescoes could be advantageously corrected. The theory of progress in art has long been exploded.

Let us turn in conclusion to quite another aspect of art, that of patronage. We may consider separately, although no hard and fast lines can be drawn, the patronage of the public in general, direct or indirect, and that of the rich or powerful individual such as a king or millionaire, or, if the days of such are to be regarded as numbered, that of the dominant individual to whom equality of opportunity has given the power that should rightly be his.

Under the most ideal conditions, the public does not exercise a choice about the sort of art it gets. A community with a living soul accepts the intuitions of that consciousness, as they are expressed by those who happen to be functioning artists, without demur. This is actually folk art, and the solid foundation of everything else. In the most fortunate periods, the taste of the folk and of persons in power is identical, a situation typically illustrated in mediaeval Europe and Hindu India. But for this there is needed not only a community of taste, but a living tradition; and for the inheritance of a tradition, there must be some kind of social equilibrium. Equally, for the maintenance of standards of craftsmanship, no less than for the finest quality of work in any other field, the artist must not be under the stern necessity of selling himself or his work to avoid starvation; he must not be subject to exploitation, nor bound to consult the taste of uncultivated individuals or audiences. Nor should there be any hard and fast line drawn between the artist and the artisan, art and industry. Under Oriental conditions, all these circumstances of security and status were provided for, either by the landed endowment of hereditary artists' families, a combination of agricultur-

al and aesthetic activity within the same family, the attachment of hereditary artists to religious foundations, the maintenance of royal workshops at every court, or the association of similarly functioning individuals in guilds or castes. In other words, a community pretending to cultivation and not merely preoccupied, as one finds to be the case in a city like this, with a merely barbaric struggle for existence, inevitably recognized its responsibility to artists, as to all other workmen, in some formal way, by according to them an inalienable status. The idea would not have occurred to anyone in the East to leave the artist to starve in time of war, on the ground that his activity is supposedly unpractical; in the case of conquest, the artists themselves might become a part of the spoils of war, but their status and activity would not be changed. Political disturbances in ancient times did not so much interfere with art as do the normal conditions of society now. In other words, whereas in industrial societies the artist occupies only the precarious position of a parasite, in Eastern countries, as in mediaeval Europe, he had a definite place in the social order.

Neither the existence of museums nor of individual rich collectors can be said to prove a love of art in modern society. Necessary as they may be, the very necessity for museums goes far to prove the absence of a genuine artistic activity in the community; for they exist to preserve such things as were once but common articles of commerce. The great museum cannot be regarded as a compensation for civic and sectional squalor. On the other hand, the great collector cannot be regarded as a patron of art, in many cases not even as a lover of art. In ages of genuine patronage, the powerful patron lent protection and support to living artists; and had this not been the case, those works which we now collect and preserve, and which command such extravagant prices, would never have come into existence. What counts is not the purchase of stray works of art by museums or collectors, but the opportunity provided for continuous and consistent work, having public rather than private application. The

artist responds to the demand—the more that is asked of him, the more he has to give. If he gives comparatively little today, it is because we are content with so little. To sum up what has been last said, a great part of the significance of Oriental art is to be read in the relation of art to life in Eastern societies.

Camouflage and Art

by HOMER SAINT GAUDENS

(Presented at the Eighth Annual Meeting, New York,
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CAMOUFLAGE in the American Army in France depended far more on ingenuity than on art; though if the ingenuity had not been based on principles acquired in the study of art, chaos must have resulted from our efforts.

Unfortunately, we were stamped at the outset as "Camouflage Artists" and as "Camouflage Artists" we were expected, in our initial work to be able to produce endless yards of magic veil under which everyone from general to private could hide both himself and his luggage, however fat.

Our merits were established or demolished on the basis of the story of the railroad tracks. All military men had heard about those railroad tracks that had been painted in perspective on a wooden screen and set up across the true rails where they ran between a station and storehouse so that the traffic on the street crossing the track behind the screen could be carried on unbeknownst to the Germans. Unfortunately when I saw that screen at Pont-a-Mousson it had been weather-beaten by a couple of years exposure to the consistency and color of an abandoned freight car. Yet the traffic behind it passed by unmolested. I doubt whether, even when new, the device deceived the Germans for one single day. It faced due North and so threw a strong shadow. Owing to the buildings the light on it must have varied in the morning and the afternoon. Moreover, the first time German aeroplane information of the traffic there was compared with German balloon reports, the discrepancy must have led to investigation.

As a consequence of just such Sunday Supplement edification, the army was one-third credulous and two-thirds skeptical of our value. The faithful understood that if we painted the bottom of a potato white and

graded it up to brown on top, they could not see it on the road. Therefore we were wizards who could hide them in any emergency. The skeptical decided, as the literal translation of our French name implied, that we were fakirs and would have none of us.

The result was the same from either attitude. Other armies, allied or enemy, might develop their schemes of scientific murder with a businesslike military policy of obtaining the best results at the least expenditure of lives or property. But the nephews of Uncle Sam, firm in the belief that invisibility was either wafted to them by us as friendly genii or not obtainable at any price, advanced with a care-free enthusiasm that is still manifesting itself in the casualty reports. Only toward the end of the war did we reach a position where we could convince the authorities that, without proper camouflage discipline, the material work of the Camouflage Section must inevitably fail to balance the foolish mistakes made through indifference to camouflage needs; that, for example, it profits little to conceal guns themselves, when ammunition trains needlessly remain parked in the open, during the daylight hours, directly behind these guns—as I remember they did in a gully on the side of the Mort Homme just before the Verdun-Argonne attack of about September twenty-seventh.

In my own personal experience this condition of indifference rose to its climax at the time we reached Death Valley, a few kilometers south of St. Giles on the Vesle. There I found assembled two regiments of 75's, one regiment of 155 mm. howitzers and one regiment of 155 mm. longs—ninety-six guns in all—which were blazing away in a truly sunny France with what camouflage they possessed hung over them like mushrooms, and about them their picketed horses, their ammunition caissons, their latrines, their kitchens, their pup-tents, and the freshly turned earth of their dugouts, forming a raw and awful litter. They needed only to have a battalion of engineers building a bridge by them in the open and a quantity of infantry held near in reserve,

to present to the Germans such a target as they had not been offered in years.

Lieutenant Thrasher, one of our best officers, who was killed there a few days later, while he was attempting to clean up that Augean Stable, was in a pitiable state of mind over it. Well he might be. When the Hun had got his own artillery into his well reconnoitered position and had finished his work, the place was a shambles, with not a battery remaining in its original location.

It must be obvious from this that our task required a much wider scope than that of applying the theories of protective coloration of animals to men who stumbled around by day and night, in rain and mud or dust and hot sun, as the season allotted, generally without food and frequently in gas-masks, driven by the agonizing demands of present-day fighting to a point where the thought of getting hit was regarded with more or less relief.

In our development which altered very much with the broadening of our scope, we set out guided largely by French principles. This was natural, as the French, with their good-humor and insight, helped generously when help was asked, kept out of the way when not wanted, encouraged us in our successes, and remained silent over our failures. The English, however, had also received an excellent reputation for rough-and-tumble results. Therefore, we sought to combine the good qualities of the two. But we soon found out what the rest of the army was discovering with equal speed, namely, that we could not adopt wholesale the extraneous methods of others and apply them with success to our own eccentricities, especially at the very moment when warfare was changing from trench to field.

Throughout all our operations, we attempted, at the front, to have a lieutenant in charge of the work of each division, a captain in charge of the work of each corps and a major or a captain in charge of the work of each army. From all these officers there was required more responsibility and initiative than was expected in the same grades in other branches of the service.

They not only had to meet the eccentricities of paper-work and to control the men under them with the universal ability and responsibility, but they also had to know the photographic values, the textures, and the characteristics of materials required, and the best means of adapting them to the natural aspects of the area in which they operated. They had to learn how to approach superior officers to obtain what they wanted in time of stress. They had to maintain their initiative and ingenuity.

Our best officers were architects. They not only understood the principles of form and color, but they had been faced with clients who would have the linen-closet, the stairs, and the chimney all in the same place. Long pestered with the practical side of life, they tempered their art to a line of brass tacks.

For our non-commissioned officers and privates, the moving-picture and stage-property men and carpenters were, by all odds, the most successful. An ability to handle those superior in rank and a resourcefulness at all hours was theirs.

Camouflage, as we found it, had two functions, to deceive the eye and to deceive the aeroplane cameras. Concealment from the eye was concealment from enemy observation posts and balloons. Except in the case of actual movement, or very large objects, aeroplane observation was photographic. Concealment from the eye was accomplished by imitating something else, that is, by making an observation post look like a coil of wire, or by disguising an object so it was not seen at all or looked like nothing in particular. Most front line work came in this category, and consisted merely of a clever manipulation of the surroundings. Road-screening, by the way, which has often been spoken of in this connection, was not concealment at all. Nothing was ever stretched over the top of a road. From an engineering point of view that would have been wholly impractical. Nor did the screens along the sides conceal the road. The road was on the map. It could be inspected by enemy aeroplanes, and it was by the map that the artillery shot. The good that road-screening did was to pre-

vent the enemy from estimating from his observation balloons the nature and the amount of traffic on those roads, and, therefore, the troops that those roads fed.

Concealment from aeroplane observation was more difficult, for the camera was more accurate than the eye. Objects to be so concealed were such as batteries, small tracks or paths, trenches, and dumps. In hiding these we were often unsuccessful because we could rarely show our army the proof of the pudding. Officers could see what they could see, but without photographs they could not see what the camera saw, and the Photographic Section of the Aviation Corps did not produce results until too late.

However, we inspected and preached until our lungs and our legs were sore. We explained that an individual object of any reasonable size, like a motor truck or a machine-gun position is invisible on the normal aeroplane photograph, taken at 2,000 meters. It is the recognizable repetition of this object, or its position in relation to its surroundings, or the signs of occupation about it, like paths or dust, that betray the object. A photograph cannot show a trench mortar with a man or two about it. But it can show the characteristic mark of the mortar's emplacement in the trench, or the peculiar nature of the disturbance when, even with all the care in the world, soldiers attempt to set a machine-gun up in a wheatfield—as I remember they did out in front of the Bois de Belleau. A photograph cannot show a field-gun, but if four of them (a battery) have been in action, it can distinctly show the paths leading up to them, and ammunition boxes and dug-up earth, and the four white, evenly placed scars, made by their blast marks where the grass has been burnt flat before them.

Photographs show patterns of black and white composed of color, form, shadow, and texture.

Color proved to be of relatively small importance. But color meant paint, and, as painters, we were asked to render invisible everything from a motor truck to division headquarters. Most of it could not be done.

Is the amorphousness of this motor truck to be accomplished under a tree, or out by a wheat field? Trucks do move. Also they get covered with mud and dirt. As for headquarters, one side will shine in the morning sun and another in the afternoon light. Moreover, a building throws a shadow. Its shadow bears an absolute relation to its form. The shadows vary during the day. The time the photograph is taken is recorded; thus, by measuring the shadow the outline of the object that caused it is obtainable.

Texture, too, offered a difficult problem, one that the layman was rarely able to understand. A favorite illustration was the silk hat, light when smoothed the right way, and dark when brushed the wrong. Loose dirt and fresh grass photograph dark, like the silk hat rubbed the wrong way. But once the army brogan has been planted on this dirt or grass, the opposite effect is obtained. The trampled gun-position would register on the photograph, like a white bulls-eye on a black target.

To help blur these shadows, forms, and textures into the surroundings we developed our camouflage material. It was composed of various sorts of dull-colored cloth, cut into dangling strips, tied to chicken-wire or fish-nets in such a manner as to give the needed variation of light and shade. In broken country with such material it was easy to take advantage of existing forms and shadows and imitate them or to create fantastic shapes that meant nothing. In flat country an overhead cover that matched the landscape was needed. These were called flat-tops and were made mostly of fish-net or chicken-wire, thirty or forty feet square, stretched horizontally, on which were tied these same bunches of burlaps to produce a texture like their surroundings. The material would be thick in the centre over the object to be hidden. It would thin out at the sides so as to blur the spot into the surroundings, as a girl blends rouge into her face.

Even when these nets were put to their proper use, aeroplane photographs which our Aviation Section took for us after the war was over, on an experimental field

near Toul, proved them to be futile unless set up in broken or mottled country. But never did mediaeval conjurer have any more popular form of self-hypnotism. I even remember under one such net, a white horse, hauling ammunition over a new and glaring trail between the road and a battery position near the Vesle. Anyhow, it kept the flies off him.

To counteract our inability to wave successfully the wand of invisibility, we constantly broadened our efforts in another direction, not fully recognized until near the end of the war. This was in the matter of reconnaissance. For example, in the search for battery or machine-gun or trench-mortar positions, the camouflage officer could give his greatest assistance, since, within the limitations imposed by the tactical requirements of the case, he could best point out where advantage could be taken of the broken nature of the landscape.

The proportionate importance of the various branches of camouflage work developed, therefore, into approximately these amounts:—

Selecting positions that can be camouflaged, fifty percent.

Strict camouflage discipline, twenty percent.

Proper erection of material, fifteen percent.

Proper material, fifteen percent.

On occasions we grew sadly discouraged. But when anyone is close to a large object it is only the discouraging details that are seen.

We did accomplish, and we did develop. We started as the painters of a new brand of scenery. Before the war closed army and corps and division headquarters, all reached a point where they became quite peevish if our little section could not be in all places at once.

On October thirtieth Lieutenant Colonel Bennion, in charge of the Camouflage Section, came to me at Toul, where I had charge of the work of the Second Army, and informed me that from that time on our scope and size would broaden rapidly. Our efforts would be called "counter intelligence work," that is, preventing the Germans from obtaining information as to our movements, or the disposition of our troops or materials. We

would make recommendations at all times regarding breaches of secrecy and violations of discipline. We would be held responsible for the general insurance of the secrecy of army troops.

That, it may be seen, was a large order, scarcely one in which art bore a predominating part, yet quite illustrative of the manner in which the Camouflage Section had drifted away from the province originally assigned to it. In war as in life, nothing is stationary. You must advance or retire. Our other choice would have been to sink back into a mottled "embusche" shadow, to paint on trucks and guns fantastic patterns that we knew from experience were useless, to obliterate one small point of relatively minor importance while miles of equipment and millions of mud-stained men passed us by to take their chances regardless. I am glad that we were given the opportunity to advance. It was a blow to art. But I fancy art still has a few compensations left.

The Necessity of Developing the Scientific and Technical Bases of Art

by EDWIN M. BLAKE

(Presented at the Eighth Annual Meeting, New York,
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IF one whose chief work has been the study and teaching of mathematics and some of its applications to engineering may venture an opinion on certain matters connected with art, I should like to give some reasons for the necessity of developing its scientific and technical bases, and offer a suggestion for procedure along that line.

Among the things which impress one in the general situation at the present time are that the winning of the war was largely the result of coöperation and original investigation, and that the lessons gained in the war should not be lost to the future. Coöperation occurred between the governments involved, between the individuals of the several nationalities, and between the members of trades and professions which had seemed far removed in their interests. Reports tell of no end of original investigations directed toward the solution of specific problems with a not inconsiderable grist of discoveries and inventions ranging from the "Liberty Motor" to the most terrible of toxic gases. We are entering a period in which political Europe will be remodeled, and in which social and economic conditions not only there but also with us may be considerably changed. The war has served to make us aware that we were dependent on outside sources for many very essential material things which we should as far as possible produce ourselves. Some, like the coal-tar dyes and medicinals, optical glass and table china, are within our ability to supply if only effort is directed toward the result; and such effort is being made with constantly gaining strength. The lack of other materials,

such as platinum, tin, and potash, not thus far discovered in sufficient quantity in the United States, prevents our complete economic independence; but even here the collection of all available supplies, the elimination of waste, and the use of substitutes when possible, has served to ameliorate the scarcity.

It would seem that art in its field should not be oblivious to the lessons indicated—the desirability of coöperation, the value of scientific investigation, and the necessity of striving for independence. To be sure, many papers have of late discussed the new conditions. It is proposed to have artist's materials manufactured in this country. The National Association of Decorative Arts and Industries has been organized. And there are calls for better art education and for better designs for our art products. All these are very encouraging signs. Are, however, all aids being developed? Perhaps they are; but one misses any very specific reference to some of them: the scientific and technical bases of art, especially the former. It is as if we had schools for the teaching of chemistry, museums filled with samples and apparatus of historic interest, means for manufacturing chemical products, a sales department for handling the output, and a well organized bureau of propaganda for making the products popular with the masses, but lacked just one thing—any provision for the study of chemistry itself, for attacking those theoretical problems which would ultimately lead to better manufacturing methods, greater diversity of products, more useful fields of application for them, and gradual change in the subjects of school instruction. Any one can readily ascertain that chemistry does not lack this one essential, but that its workers are constantly clamoring for and providing still greater facilities for research.

It would, of course, be unjust to affirm that the art interests in this country are entirely oblivious to the study of its underlying theoretical problems, but it impresses one that a great deal more might be done, and with no little benefit to all other phases of art development.

In speaking of art I have in mind the visual fine and decorative arts, that is, those which make their appeal through the eye and which do not involve the use of language—that is, excluding literature, poetry, the drama, and music. The visual fine and decorative arts are capable of further classification into static, that is, drawing, painting, etching, modeling and sculpture; and kinematic, including art dancing, color music, and analogous arts. The problems connected with the visual static arts may conveniently be grouped about the following four topics:—

FIRST. The materials and methods of artistic fabrication. This would include the chemistry and physical properties of dyes and pigments (especially their fastness to light), the procedure of laying paint on canvas, the various processes of the craftsman, and the operations in commercial manufacture, also questions relating to the preservation and restoration of works of art.

SECOND. The motives used in design and the procedures of composition. This includes the sources of motives used in designs: naturalistic motives from plant and animal life, from man and structures reared by him, from his history and social relations, and abstract motives furnished by geometry.

THIRD. The psychology of art creation and appreciation. The questions arising here of what art is, how created, why enjoyed, whether beauty has absolute standards or is relative to time, place, and the individual, are, we believe, among the most difficult, the most important, and least considered in connection with art.

FOURTH. Social and economic relations of art. Under this heading would come questions relative to the training of art workers, to the spread of knowledge and appreciation of art, to the organization of art industries and sale of their products. Here might be grouped also questions concerning the history of art.

Of course no one of these four topics can be sharply separated from the others, nor can problems

under one be solved without considering the effects on the others.

Turning now to the kinematic visual arts, I pass over art dancing to say a word on color music and analogous arts—that is, those which would involve the showing of geometric plane or space figures in motion. The questions involved in their study might be grouped under four topics, in much the same manner as those given above, but with some important modifications. Under the first topic would have to be included apparatus for the performance of compositions, kinematic compositions being in this respect analogous to music. Under motives would have to be included temporal sequences or rhythms, similar to those of music, and the psychology of composition and appreciation must take into account the elements of time, motion, and rhythm.

The present paper would urge the advisability of studying for the static arts: the problems of physics and chemistry coming under the first topic, the abstract motives of design which geometry may be able to suggest, and, above all, the psychological questions which fall under the third topic. The scientific consideration of color music and the possible arts of mobile abstract form, is at present of little practical importance since these have been scarcely more than suggested. However, such studies might serve to show the conditions under which such arts might be developed and the limitations to which they are of necessity subject, and thus lead the way to their earlier introduction—were indications of their possible success forthcoming.

Assuming, then, that there are important questions, such as those suggested above, which merit careful investigation by scientific methods, are the investigations being carried forward by proper methods and with sufficient activity? We think not, one difficulty being that there is no society in the country devoted to the study of the scientific foundations of art, though it would seem that the College Art Association might add this to its other fields of usefulness.

To be sure, the Association was established primarily for furthering the teaching of art, but what can be more conducive to efficient and forceful instruction than the placing of art as far as possible on a rational basis? Further, what body of men and women engaged in art work in the United States is in as close touch with the leaders of science as the members of the College Art Association, who number among their friends and colleagues the great majority of the scientific thinkers and investigators of the country?

And this last is by no means an unimportant consideration, for it would seem to afford an opportunity for attaining a very essential end—coöperation between college art teachers and scientists. Hearty coöperation between interested workers in the two fields could hardly fail to lead to a clearer statement of fundamental problems and to a concentration of effort towards their solution. And no country in the world is, perhaps, better fitted to attain a high place in these matters than our own, were the necessary organization provided and interest aroused. We are among the leaders in psychology, physics, and geometry, and the stimulus to chemistry since the beginning of the war has carried us far. Unfortunately, little of this science has been directed to the service of art, though it should be if we are to attain success. We call in the physician to regulate our diet, the lawyer to solve our legal problems, the plumber to repair a frozen water pipe, and why not the chemist, the physicist, and the psychologist to help with the chemistry of pigments, the theory of color, or the study of the mental processes following vision?

In place of coöperation what do we find? Well, as the writer sees it—confining the attention to psychology, which may serve as an index to the whole—we have on the one hand the *American Journal of Psychology*, the *British Journal of Psychology*, and other like publications—in the English language and available in our libraries—publishing each year a few papers describing investigations bearing on the psychology of art. On the side of art we have the

Studio, and like journals, and now and again a book which discuss matters of art theory, but usually in a vague and untechnical manner; that is, the language used fails to convey clear and unequivocal meaning, the arguments lack definite conclusiveness, and wide generalizations are affirmed on insufficient evidence. Now, each of these two kinds of publications goes its way ignoring the existence of the other. It would seem that the editors of journals of psychology do not find the theories of writers on art very illuminating and perhaps the latter may find the papers of the psychologist dull reading—if in fact they ever hear of them.

The speaker is a firm believer in the necessity of thorough preparation for the solution of scientific and technical problems. Once in a long while a man may make an important discovery in a subject he is little acquainted with, but these cases are the rare exceptions. Prof. Ames of Johns Hopkins University has recently expressed this idea as follows. "One government board with whose activity I am familiar has had submitted to it in the course of the year 16,000 projects and devices proposed by so-called inventors; of these only five had sufficient value to deserve encouragement." "The point I wish to emphasize is that the ability and knowledge required in waging this war successfully are not those possessed by any body of men except those with a profound knowledge of science and of scientific method. The problems are too complicated." (Science, October 25, 1918, p. 403.) Also, lest it be claimed that science and scientific methods, though very essential to science, do not apply to research in other lines, such as ethics and religion, art and aesthetics, let me quote Prof. Lewis of the University of California. "Religion may and should inculcate righteous righteous zeal, but this impulse alone, no matter how intense and sincere it may be, does not necessarily enable us to distinguish between right and wrong, and may even make us the more zealous in wrong-doing. To make an ethical decision we must see all the relations of the subject to ourselves and our fellow men, and see them disinter-

estedly, without prejudice and without regard to authority and tradition. This is a mental attitude which is essentially scientific and which is consistently developed by scientific studies alone." (*Scientific Monthly*, November, 1918, p. 438.)

Applying the above to art we see no good reason for assuming that, because a man has become a great painter of landscapes, or has achieved distinction as a craftsman in silver, or has successfully guided innumerable classes through the mazes of the history of painting, he is of necessity a great authority on the physics of light and color, or the psychological principles underlying art appreciation. In coöperation with the scientist, however, the trained eye of the painter, the subtle taste of the critic, the clear memory of the museum worker stocked with innumerable art forms, and the deep knowledge of the rise and decay of cultures possessed by the authority on history, are invaluable as furnishing the concrete material with which to make experimental investigations.

The justification of the principles and procedures of art, as far as may be possible, by the results of carefully conducted and impartially interpreted experiments, should have the effect of arousing and maintaining an interest for art among the more conservative, intelligent, and rational part of the population, as against the impulsive, the emotional, the mystic, and the neurotic; not that emotion of the proper kind would thereby be excluded from art, since expressiveness stimulative of emotion is its very foundation, but that the emotions induced by objects of art would rest on a more secure, reasoned, and intellectual basis. And we believe that thus our art production and criticism would be more able to advance against foreign competition and withstand the worst manifestations and tendencies of domestic production.

Were it decided to attempt to gain the coöperation of scientists and technologists in the study of art problems the College Art Association might include in its programs:—

FIRST. Summaries of those applications which

science has already made to art, such as the theory of color vision, vegetable and chemical dyes and pigments, or some of the scientific aspects of ceramics.

SECOND. Reports and discussions of recent scientific investigations which appear to have a bearing on art problems, such as "Experiments on a Possible Test of Aesthetic Judgment of Pictures" on the basis of a paper with this title in the *American Journal of Psychology*, July, 1918. It would undoubtedly add to the interest of these reports and discussions, and the summaries above mentioned, if in part, at least, they came from some of our scientific friends.

THIRD. Digests, reviews, and criticisms of current scientific, technical, and art literature which treat of fundamental problems. This might be made a feature of the *Bulletin*, and thus do for art what is being done for so many other lines, and on which so much of the possibility of coördination of effort depends.

REVIEWS

THE METROPOLITAN MUSEUM OF ART. HANDBOOK OF THE CLASSICAL
COLLECTION.

By Gisela M. A. Richter.

Pp. xxxiv, 276; 159 illustrations. Metropolitan Museum, 1918.

THIS is a beautifully printed and ideal handbook issued at the time of the opening of the new Classical Wing, which was an event of great importance for classical art in America. The Introduction gives a history of the collection and its present arrangement and an excellent short appreciation of Greek art, explaining why Greek art is even today worthy of the most detailed study. Not only for historical reasons is Greek art important but because the Greeks achieved perfection, and the study of the evolution of art from its primitive origins is an artistic training of the first order. The Greek conception of beauty is one we need today. "The calm remoteness which distinguishes their best works is in such contrast to the restlessness of modern life that it affects us like the quiet of a cathedral after the bustle and confusion of the streets." Greek art is furthermore human and direct.

The bibliography is well selected, though among the general works we miss Fowler-Wheeler's Handbook of Greek Archaeology; on Prehellenic Greece, Hogarth's excellent article on Aegean Religion in Hastings' Dictionary of Religion and Ethics, and Tsountas' modern Greek book on Dimini and Sesklo; on architecture, Choisy's *Histoire de l'Architecture*; on sculpture, the American edition of Hekler's Greek and Roman Portraits, Mrs. Strong's Apotheosis and After Life; on vases, the 1916 reprint of Miss Kahnweiler's translation of Pottier; on painting, Rodenwaldt, *Die Komposition der Pompejanischen Wandgemälde*. Most of the important catalogues are cited, but why mention Mendel's

catalogue of terra-cotta figurines at Constantinople and not his very important *Catalogue des Sculptures*.

The description of the First Room gives an excellent account of prehistoric Greece and the three Minoan periods, except for the omission of the important Minoan bronze statuettes. Karo's restoration of the steatite vase on p. 15 would give a better idea of the original shape. The ivory figures from Knossos are bull acrobats rather than divers (p.16). In the fresco on p. 23, the bull is not about to toss a girl toreador caught on its horns but the girl is, rather, doing some acrobatic stunt, holding on to the bull's horns.

The Second Room is devoted to the early Greek period. On p. 43 we read that this epoch produced no monumental architecture or sculpture, but what of the Argive and Olympian temples of Hera? It is interesting to see reproduced some of the Lydian vases from the American excavations at Sardis (pp.51-53). The beautiful Etruscan gold fibula (p. 57) is now well published by Curtis in the Memoirs of the American Academy, p. 84 and pl. 18.

The Third Room is given over to the archaic period and has the famous Etruscan bronze chariot. In this connection, it might be said that an archaic Italic war chariot made for use and not for ceremonial purposes was found a few years ago at Fabriano in Umbria and is now in the Museum at Ancona. Many other bronzes, vases of terra-cotta and glass, gems, and jewelry are also found in this room. The Fourth Room contains objects of the first half, and the Fifth Room objects of the second half of the fifth century B. C. On p. 105 the inscription of Hegesiboulos is wrongly given, the lambda and gamma being interchanged. The illustration on p. 104 is also wrong in this respect. On p. 122 "Antiokos" read "Antiochos." The Sixth Room has objects of the fourth century. On p. 132 the battle of Leuctra is dated 379 B. C. instead of 371.

The Seventh Room is devoted to the Hellenistic period. Fig. 99 is not exactly in the attitude of the Knidian Aphrodite (p. 160). The Eight and Ninth Rooms are devoted to the Roman Imperial period. The

Central Hall has Greek and Roman Sculptures. On p. 221 for 'Paiania' read "Paiania" and on p. 222 the first "i" in the Greek name of "Lysistrate" should be "Y" and "tan" should be "tau." On p. 224 the group of Eirene and Plutos by Cephisodotos (of the child there is a copy also in Dresden) is said to have been referred to by Pausanias as on the Areopagus. Pausanias does not say this, but it very likely stood somewhere near the Areopagus.

The text gives the essential information and is sound-minded and interesting, and the arrangement of the various kinds of art by periods and not by material is well carried out and an important innovation. The book is printed in the best style on beautiful paper and with excellent illustrations. Miss Richter in this handbook, as in her catalogue of the bronzes, has set a high standard for museum catalogues and has shown that America can produce as good catalogues as the European museums.

David M. Robinson.

ATTIC RED-FIGURED VASES IN AMERICAN MUSEUMS.

By J. D. Beazley.

Pp. x, 236; 132 illustrations. Harvard University Press, 1918. \$7.00.

SINCE 1910, when J. D. Beazley of Christ Church College, Oxford, published his comprehensive and illuminating article on Kleophrades in the *Journal of Hellenic Studies*, it is safe to say that no student of Greek ceramics has done more along the lines of the identification of unsigned vases than he. Consequently, his book on *Attic Red-figured Vases in American Museums* has been eagerly awaited by the archaeologists with the feeling that this work would prove to be an even greater contribution to the study than his previous articles.

Beazley's methods have been looked at askance by many of the older scholars (Percy Gardner, for instance), though any one who is thoroughly conversant with them would be puzzled to say just why. His previous work has shown very conclusively that he possesses an unequalled eye for stylistic details, an extraordinary familiarity with his material at first hand and a keen sense of aesthetic values. The average scholar is all too prone to forget that his identifications are almost invariably based on a study of the original vases, not plates or photographs, and it is doubtful whether any other living archaeologist possesses a wider acquaintance with the material than he. Also, it is unfair to judge the soundness of his attributions by a study of only one or two examples. Very frequently two vases assigned by him to the same hand appear at first sight to have little resemblance to each other, but when all the attributions are studied carefully (preferably from photographs or tracings in default of the originals) the stylistic progressions may be clearly seen and the resemblances become positively startling. It ought also to be recognized that practically similar results have been secured by other scholars independently and simultaneously. Frickenhaus in his *Lenaeenvasen* attributes al-

most all the same vases to one hand that Beazley gives to the Villa Giulia master; with a few exceptions, both Miss Swindler and Beazley agree on the works of the Penthesilea Painter and more recently Buschor in the *Jahrbuch* for 1916 has reached substantially the same conclusion as Beazley with regard to some Douris vases, though Beazley detaches them and calls their author the Louvre G 187 Painter. Surely this is sufficient justification of the soundness of his methods!

"Attic Red-figured Vases in American Museums" represents a comprehensive treatment of the red-figured style from the transitional period to the Meidias Painter. The majority of the better-known artists and potters are studied and numerous new attributions given either to their own hands or to the nameless artists who worked for them. In addition a large number of new painters is added, many of them, like the Niobid Painter, artists of the first rank. Especially good are the sections devoted to the work of Epiktetos, the Euphronian group, Oltos, Hermonax, and Makron. Numerous additions to the work of artists already published by him elsewhere, like the Achilles, Pan, and Berlin Amphora Painters are included. The style is marked by flashes of pleasant humor, the analysis is thorough and scholarly, and the illustrations are comprehensive and useful.

But there are some serious items on the debit side. Perhaps the first thing that strikes the critic most forcibly is the title, for, considering how extremely few relatively are the American examples among the total attributions, another title might well have been selected. The present one is rather a misnomer.

In practically all of Beazley's earlier articles definite reasons were given for the various attributions, and one wishes that a similar method might have been followed in this book—even if slightly. Of course, it must be admitted that if the work of every artist in the volume had been treated as thoroughly as the Achilles or Pan Painters elsewhere, the volume would have been many times its size. But in spite of the author's qualifications, a number of the attributions are debatable (some of the works of the Paris Gigan-

tomachy Painter, for instance), and were they given a little less as *ex cathedra* statements, they might excite less opposition. In the case of some of the new artists, like Myson, a few general remarks on his style would have gone far to make the attributions more convincing.

Perhaps the most serious fault in the book is the arrangement of the material. There is no index of the new artists and it requires some agility to locate painters like the Orchard or the Deepdene Trophy Pelike Painters. Further, while the classification of the various attributions by shapes is praiseworthy, that by subjects is not. On pp. 102-106 there are no less than one hundred and three cups arranged according to subjects and the difficulty in finding any given vase among the number is very great. Had they been given in their alphabetical order according to museums, this difficulty would not have arisen. Further, it would have been better if in every case a full list of all the vases attributed to any master had been included after the text dealing with them; to pick out the different vases in the Lysis, Laches, and Lykos groups, or those of the Brygos Painter is by no means easy.

The choice of names for the new artists is, on the whole good, but some are unsatisfactory. The question might be raised why the artist called on p. 194 the "Painter of the Deepdene Amphora" (which is no longer in Deepdene) should have been given the name. As one of the attributions bears the signature of the potter Oreibelos, it would surely have been more natural to call their author the Oreibelos Painter, like the Brygos or Kleophrades Painter. A better title might have been found for the "Flying Angel" Painter on p. 57. To American ears the expression is misleading, and in a work devoted to vases in American museums it would surely have been easy to have chosen a title less apt to lead to confusion.

Occasional expressions are irritating. "Youth greaving" on p. 11 No. 28 is surely not English.

The work is extraordinarily free from errors or misprints. The following small slips may be noted.

p. 30, fig. 14. Should be Louvre G 30 instead of G 103.

p. 25. Under New York 06.1021.99 should be plate 16 of the Sambon collection.

p. 50, no. 16. S. 1315 according to Pottier is a different fragment.

p. 80, 4th line from bottom. The reference to *Musée* iv should be page 12 not plate 12.

p. 87, 7th line from bottom. Should be New York 14.105.9 instead of 14.1059.

p. 133. Under Bologna Boreas Painter read Furtwängler, *Neue Denk.* vol. iii instead of ii.

The press work and binding is excellent and the Harvard Press is to be congratulated on it.

As no book exists in which flaws cannot be picked, it would be invidious to cavil at the few faults in Beazley's work. It is a noteworthy contribution to Greek ceramics and must be regarded as one of the most valuable works of the kind that have appeared in the last twenty-five years. Let us hope that the present volume is only the first of a series of similar works!

Joseph Clark Hoppin.

NOTES

PROTECTION FOR THE HISTORIC MONUMENTS AND OBJECTS OF ART IN NEARER ASIA

THE collapse of the Turkish Empire has called the attention of the civilized world to the importance of protecting the ancient historic monuments and objects of art which for centuries have been under the careless rule of a government that has had little or no interest in them. No lands on the globe contain such rich treasures of antiquity, occupying so vast an area, representing so many civilizations, and covering so long a period of the world's history. Most of the early history of our own civilization and art lies buried in these lands which are now to be placed under some form of control by the leading powers of the western world. It is manifestly the duty of these powers to take immediate steps to protect this ancient heritage—of which, after all, the western world is the true heir—and to formulate laws, and make common agreements, according to which the historic monuments and the works of ancient art now buried may be brought to light and made most efficiently to serve the demands of civilization.

Feeling that the interest and duty of the United States in these matters were as great as those of any of the western nations, the writer introduced a resolution which was adopted at the annual meeting of the Archaeological Institute in December, 1917, in accordance with which the President of the Institute was to appoint a committee to communicate with the government in Washington on the subject of the protection of the historic monuments in Turkey as soon as peace negotiations should be begun. Professor James R. Breasted introduced a similar resolution at the corresponding meeting of the American Historical Association, with the result that these two large and influential bodies placed themselves on record as working for the same end even while the war was still in progress.

A year later the war had nominally ended and the Peace Conference had begun its negotiations in Paris. At the next annual meeting of the Archaeological Institute, in December, 1918, the writer introduced another resolution providing for immediate action in connection with the protection and administration of the ancient monuments in Turkey through the Peace Conference. This resolution was framed on the lines of one drawn up and adopted by the British learned societies. Copies of this resolution had been sent out to all the learned societies, museums, and other institutions in America likely to be interested, with the request that they adopt it, and each was asked to coöperate in any action which the Institute might take toward making it effective. All of these bodies adopted the resolution and agreed to coöperate. The Institute then proceeded to appoint Mr. William H. Buckler its special representative in Paris, and the resolutions for coöperation which had been passed by the other societies and institutes made Mr. Buckler their representative also. As a scholar familiar with the Nearer East and on intimate terms with the British and French scholars, Mr. Buckler, who was filling a temporary post in the American Embassy in London, was exceptionally well qualified to take up this work. He went immediately to Paris where he became a member of the Archaeological Joint Committee. This committee at first proposed the constitution of an International Commission for Antiquities for the administration of historic monuments in Turkish lands, acting as the mandatory of the League of Nations, and drew up a proposal for the constitution of such a commission, suggesting the main principles for a law governing the antiquities. The proposal, I understand, was received formally by the Peace Conference, and was returned to the committee for the further working out of the details of the law.

Later on the Joint Committee was asked by the British to draw up a law of antiquities for Palestine which was already under British control. This law, it seems, appeared to all concerned so highly satisfactory that the original plan for an international commission

was, at least temporarily, abandoned in the hope that each and every Power likely to accept a mandate under the League of Nations for any portion of Turkey in Asia might agree to adhere to the principles of the law. The most recent advices from Paris are to the effect that there is virtually an agreement among the Powers upon this question, though final action has as yet not been taken. It seems quite probable that the principles of this Law of Antiquities for Palestine will be supported by the League of Nations, and put in force by it in all parts of the Turkish Empire allocated to the various Powers by the League.

It is impossible at this time to publish this law in detail; but it may be of interest to note that its main principles provide amply for the protection of the historic monuments, for a degree of international control through the British, French, and American schools of Archaeology by representation on an advisory board, for the encouragement of scientific research by competent and suitably equipped scholars regardless of nationality, for the establishment of a national museum in Jerusalem (which would mean corresponding museums in Syria, Mesopotamia, Armenia, Anatolia, etc.), for equitable division of movable objects discovered between the national museum and the excavator, for suitable rewards to be given to native finders of antiquities, and for the regulation of exportation, possession and sale of antiquities by dealers and other private persons. Almost any law which would guarantee protection of the antiquities from loss or damage, and which would be enforced, would be acceptable in place of the present ineffectual law with its loose enforcement; but it may not be too optimistic to hope that we shall see a law framed and put in force which shall not only insure the safety of the monuments, but shall render them accessible; in the first place for study by scholars, and in the second for enjoyment by art lovers the world over.

Howard Crosby Butler.

PROGRAM OF THE
EIGHTH ANNUAL MEETING
OF THE
COLLEGE ART ASSOCIATION
OF AMERICA,

METROPOLITAN MUSEUM,
New York.

MONDAY, TUESDAY, WEDNESDAY, MAY 12, 13, and 14,
NINETEEN HUNDRED AND NINETEEN.

MONDAY, MAY 12, 10:00 A. M.

METROPOLITAN MUSEUM

CLASS ROOM A.

Address of Welcome

REPORTS OF COMMITTEES:

Secretary-TreasurerJOHN SHAPLEY, *Brown*
AuditingGEORGE B. ZUG, *Dartmouth*
MembershipJOHN SHAPLEY, *Brown*
LegislationHOMER E. KEYES, *Dartmouth*
Books for the College Art LibraryARTHUR POPE, *Harvard*
Reproductions for the College Museum and Art

Gallery DAVID M. ROBINSON, *Johns Hopkins*
Investigation of Art Education in American Colleges
and UniversitiesHOLMES SMITH, *Washington*
Research Work and Graduate Teaching in

Art A. V. CHURCHILL, *Smith*
President's Address:

The Future of the College Art

AssociationJOHN PICKARD, *Missouri*
The Necessity of Developing the Scientific and Technical
Bases of ArtEDWIN M. BLAKE, *New York City*
Application of the Munsell System to the Graphic
ArtsARTHUR S. ALLEN, *President American*
Institute of Graphic Arts

1 P. M.

Luncheon at the Museum Restaurant

2 P. M.

Gallery Tours to Various Collections in the Museum

3 P. M. CLASS ROOM A.

Points of Approach in Teaching Elementary Art

HistoryE. O. CHRISTENSEN, *Ohio State*
 The Sources of French Romanesque Sculpture ..C. R. MOREY, *Princeton*
 Antique Glass GUSTAVUS A. EISEN, *New York City*
 Preservation of Monuments in Nearer

AsiaHOWARD CROSBY BUTLER, *Princeton*
 Dynamic Symmetry in Nature and in Greek

ArtJAY HAMBIDGE, *Boston Museum of Fine Arts*

7 P. M.

Dinner at National Arts Club followed by a "Round Table" Discussion
 of the *Significance of Art*

Art in the CollegeANNETTE J. WARNER, *Cornell*
 Significance of Oriental ArtANANDA COOMARASWAMY, *Boston*

Museum of Fine Arts

Stabilizing the Public Opinion of ArtGEORGE WILLIAM EGGERS,
Chicago Art Institute

"The Learning by us all of the Meaning

of it all"HOMER EATON KEYES, *Dartmouth*

Art and Salvage of the PastFRANK JEWETT MATHER, *Princeton*

TUESDAY, MAY 13, 10 A. M.

METROPOLITAN MUSEUM

CLASS ROOM A.

War and Its Records

War PicturesGEORGE BREED ZUG, *Dartmouth*

How the Italians Protected their Works

of ArtCHARLES UPSON CLARKE, *American School in Rome*

Some War Memorials of the Past ..DAVID M. ROBINSON, *Johns Hopkins*

War MemorialsRALPH ADAMS CRAM, *Boston*

Princeton Battle MonumentALLAN MARQUAND, *Princeton*

Camouflage and ArtHOMER SAINT GAUDENS, *New York City*

Pictorial Records of the War..ALBERT EUGENE GALLATIN, *New York City*

1 P. M.

Luncheon in the Museum Restaurant

2 P. M.

Visit to the George Grey Barnard Cloisters

In charge of Local Committee on

ArrangementsLOUIS WEINBERG, *Ch. College of the*
City of New York

7 P. M.

Dinner at National Arts Club followed by "Round Table" discussion of
Art and Industry

The Need of Art in American Industry and	
Education	P. P. CLAXTON, <i>Commissioner of Education</i>
Practical Problems of Manufacturers and	
Designers	WILLIAM LAUREL HARRIS, <i>Good Furniture Magazine</i>
Supply and Demand	ELLSWORTH WOODWARD, <i>Sophie Newcomb</i>
American Industrial Art and the	
Schools	RICHARD F. BACH, <i>Metropolitan Museum</i>
Art and Industry	FREDERICK L. ACKERMAN, <i>New York City</i>
American Art Training for Art Work in the Coming	
Art War	JOSEPH PENNELL, <i>Etcher</i>

WEDNESDAY, MAY 14, 10 A. M.

METROPOLITAN MUSEUM

CLASS ROOM A.

Oberlin Art Museum	CLARENCE WARD, <i>Oberlin</i>
Value of Loan Exhibits at the Fogg Art	
Museum	PAUL J. SACHS, <i>Harvard</i>
A Student of Ancient Ceramics, Antonio	
Pollajuolo	FERN RUSK SHAPLEY, <i>Boston</i>
Art for the College Degree	ANDREW J. WEST, <i>Princeton</i>
Influence of Dutch Art upon the Art of the	
Future	ARTHUR EDWIN BYE, <i>Vassar</i>
Sienese Paintings in the Fogg Art	
Museum	GEORGE H. EDGELL, <i>Harvard</i>
Election of Officers	

1 P. M.

Luncheon at the Museum Restaurant

2 P. M.

Gallery Tour in charge of the Local Committee on Arrangements

MINUTES

Report of the Secretary-Treasurer:

JOHN SHAPLEY.

Upon assuming office the present treasurer found a deficit of \$44.32. The total income for the present year was \$693.50, far more than twice that of the preceding year. The total expense was \$535.62, likewise large, due to the greatly increased size and consequent cost of the Bulletin. This makes a net income of \$157.88, which leaves, after subtracting the deficit of the preceding year (\$44.32), a balance on hand of \$113.56. Most of the financial improvement is due to new membership, especially since most of the new institutional members have bought the back numbers of the Bulletin and because certain of the old members have neglected to pay their annual dues. In accordance with the constitution, a few of these have been dropped through delinquency. The present number of members is 212, of which more than half are active.

The report of the Secretary-Treasurer was accepted upon approval of the Auditing Committee.

Report of the Committee on Membership:

JOHN SHAPLEY, Chairman.

The Committee on Membership sent out during the year about 2000 circular and personal letters of invitation to individuals and institutions. This gave rise to a very large correspondence with prospective new members, more than a hundred of whom have been added. Some of the new names will be found in the list published last September; the others will appear in the next list. The Association should be gratified that a large number of institutions have become associate members and that there has been a small response to the call for sustaining members. With the coöperation of others outside the membership committee many more additions can doubtless be made.

Report of the Committee on Legislation:

A special committee, with E. R. Bossange as chairman, reported the following resolution, which was adopted:—

WHEREAS the development of the arts, particularly in their application to industrial pursuits, is becoming more and more a necessity as the dependence of American industry upon American artists and artisans increases,

And whereas much of the restlessness and of the discontent of man with his work and with his surroundings is due to lack of beauty in his life and lack of opportunity for self expression,

And whereas the present is an opportune time to profit by the inspiration awakened by the contact of our soldiers with the national arts of Europe, which so thoroughly permeate and enrich life,

And whereas in order that this country may compete successfully with the highly organized arts and industries of foreign countries it

is necessary for the United States Government to support and direct the development, organization, and coördination of art work in schools, museums, and other institutions,

Be it therefore

Resolved: That the College Art Association of America recommend to Congress, as a practical measure in reconstruction and as an indispensable factor in the economic growth of America, the creation of a Department of Fine and Industrial Arts, as a permanent department of the Federal Government, corresponding to the Ministries of Fine Arts of European governments.

Report of Committee on Books for the College Art Library:

ARTHUR POPE, Chairman.

Owing to conditions during the past year, which it is hardly necessary to specify in detail, the Committee on Books for the College Art Library is able to report but little actual progress toward the publication of the list of books. The purchase of Congressional Library cards for three duplicate card catalogues has, however, been authorized, and the Committee hopes soon to have these complete and ready for circulation. The Congressional Library cards will insure accuracy and uniformity in the published list.

It is hoped that the Harvard University Press will undertake the publication of the list, but in case it should decline to do so and no other press should be willing to do it, the Committee would like to know if it is the desire of the College Art Association to finance the publication? The Committee hopes that this will not be necessary, and that the publication of the list may be pushed rapidly during the summer.

The Committee hopes to make a much more satisfactory report at the next meeting.

Report of Committee on Reproductions for the College Museum and Art Gallery:

REPRODUCTIONS OF ROMANESQUE AND GOTHIC ART FOR THE COLLEGE MUSEUM AND ART GALLERY.

CHARLES R. MOREY.

This report is meant to follow the lines of that presented to the Association in Bulletin No. 3, wherein Miss Abbott outlined three lists of casts of sculpture to cost respectively \$1000, \$3000, and \$5000.

It will be noted that the lists contain no casts of ivories. This is due to the fact that casts from ivories are generally unsatisfactory, but I also feel that the periods of the Early Middle Ages whose figure-sculpture is chiefly represented by the ivory-carvings are much better illustrated by illuminated manuscripts. In fact, it seems to me that an art curriculum which proposes to do thorough work in the mediaeval period must sooner or later feel the necessity of good reproductions of manuscript miniatures and illuminations, if for no other reason than that illumination is the mediaeval art *par excellence*, beginning and

ending with the Middle Ages, and the only form of mediaeval art which offers at once both plenty of material, and a continuous and consistent evolution of style. For this reason I should strongly recommend the purchase of good collections of manuscript reproductions, e. g.

Boinet: *La Miniature Carolingienne*, Paris, Picard, 1913.

Kraus: *Miniaturen des Codex Egberti*, Freiburg i/B, Herder, 1884.

Swarzenski: *Regensburger Buchmalerei*, Leipzig, Hiersemann, 1901.

Swarzenski: *Salzburger Buchmalerei*, Leipzig, Hiersemann, 1913.

Merton: *Buchmalerei in St. Gallen*, Leipzig, Hiersemann, 1912.

Westwood: *Miniatures and Ornaments of Anglo-Saxon and Irish Manuscripts* (poor colored plates).

Sullivan: *The Book of Kells* (colored plates), N. Y., the "Studio" 1914.

Warner: *Illuminated Manuscripts in the British Museum* (colored plates), London, Brit. Mus., 1903.

British Museum: *Reproductions of Illuminated Manuscripts*.

Société de Reproductions de Mss. à Miniatures: Bible Moralisée, Paris, 1911-1913.

Paris, *Bibliothèque Nationale: Reproductions* (selected).

For the ivories themselves, I should recommend, instead of casts, the photographs published by Graeven of ivories in Italian and English collections, Vöge's plates reproducing the ivories in the Berlin Museum, and, above all, the recent publication of Carolingian ivories by Goldschmidt. Even his photogravures convey a truer impression of style and technique that do casts.

I think that the same objection to casts obtains, although of course in lesser degree, with reference to sculpture in stone. The more generalized surfaces of ancient marbles and the pseudo-classic modelling of Renaissance sculpture are very well conveyed by plaster because their prevailing values are those of form and mass. But the effect of Romanesque and Gothic sculpture is often a matter of delicate line that is lost in the cast, and Gothic sculpture is usually so much a part of the architecture which it decorates that a cast, to do it justice, should also include a considerable portion of the building—much more, in fact, than the moulder will commonly include. For this reason photographs seem to me still the best apparatus for the study of Romanesque and Gothic, and I find that neither teacher nor student makes use of the Princeton cast collection to an extent which compares in any degree with the constant employment of our photographs.

We nevertheless have to consider the casual visitor, and the general student body, as well as those who are enrolled in the art courses, and for these there can be no question of the immense value of the silent teaching conveyed by reproductions. Casts are undoubtedly a necessary part of the equipment of the College Art museum; but, for the reasons given above, the reproductions of Romanesque and Gothic sculptures should be few and big, so far as is possible. The effect of these styles is cumulative, proceeding from the ensemble rather than from details.

I. Minimum List, approximately \$1000

French Romanesque

1. Vézelay, abbey church, portal.
2. Paris, N. Dame, St. Anne Portal, Virgin & Child.

French Gothic

3. Paris, N. Dame, Virgin Portal, tympanum.
4. Reims, cathedral, Annunciation & Visitation.
5. Strassburg, cathedral, statues of Church & Synagogue.
6. Paris, N. Dame, Virgin in the choir.

German Romanesque

7. Hildesheim, Bernward Column.

German Gothic

8. Bamberg, cathedral, statues of Adam & Eve.

Italian Romanesque

9. Parma, cathedral, Deposition, relief by Antellami.
10. Pistoja, S. Bartolommeo, relief from pulpit by Guido da Como.

Italian Gothic

11. Pisa, baptistery, pulpit, reliefs by Niccolò Pisano.
12. Pistoja, S. Andrea, pulpit, figure & relief by Giovanni Pisano.
13. Florence, campanile, reliefs by Andrea Pisano.
14. Florence, Or San Michele, tabernacle, reliefs by Orcagna.

II. List to cost approximately \$3000

French Romanesque

1. Arles, St. Gilles, pilaster and portion of frieze.
2. Vézelay, abbey portal.
3. Moissac, tympanum and figures on jambs of portal.
4. Clermont-Ferrand, N. Dame du Port, reliefs of portal & capitals.
5. St. Denis, statues of king and queen from Corbeil.
6. Paris, N. Dame, Portal of St. Anne, Virgin & Child.
7. Senlis, cathedral, lintel with Resurrection of Virgin.

French Gothic

8. Paris, N. Dame, Virgin Portal, tympanum.
9. Chartres, cathedral, south transept, statue of Christ.
10. Reims, cathedral, Annunciation & Visitation.
11. Amiens, cathedral, statue of St. Firmin.
12. Strassburg, cathedral, statues of Church & Synagogue.
13. Paris, N. Dame, panel of choir-screen.
14. Paris, N. Dame, Virgin in the choir.
15. Dijon, Chartreuse de Champmol, Puits de Moise.

German Romanesque

16. Hildesheim, Bernward Column.
17. Bamberg, cathedral, apostle & prophet from Choir of St. George.

German Gothic

18. Freiberg (Saxony), cathedral, Golden Portal.
19. Bamberg, cathedral, statues of Adam & Eve.
20. Bamberg, cathedral, Sibyl.

21. Cologne, cathedral, Christ & Virgin in the choir.

Italian Romanesque

22. Parma, cathedral, Deposition, relief by Antellami.
23. Pistoja, S. Bartolommeo, pulpit, relief by Guido da Como.
24. Capua, Portrait head of Pietro delle Vigne.
25. Rome, S. Paolo, detail of decoration of cloisters.

Italian Gothic

26. Pisa, baptistery, pulpit reliefs by Niccolò Pisano.
27. Pistoja, S. Andrea, pulpit, figure & relief by Giovanni Pisano.
28. Florence, baptistry, bronze gates by Andrea Pisano.
29. Florence, Or San Michele, tabernacle by Orcagna.

English Gothic

30. Wells, cathedral, figures from the façade.
31. Beverly, Percy Tomb, "Christ with the Soul."

III. List to cost approximately \$5000

Pre-Romanesque

1. Milan, Paliotto, one front.

French Romanesque

2. Arles, St. Gilles, pilaster, and portion of frieze.
3. Moissac, Tympanum and figures on jambs of portal.
4. Vézelay, abbey-church, portal.
5. La Charité, tympanum of portal.
6. Saintes, portal sculptures.
7. Clermont-Ferrand, N. Dame du Port, portal reliefs & capitals.
8. Chartres, cathedral, west front, tympanum of central portal and two statues.
9. Paris, N. Dame, St. Anne Portal, Virgin & Child.
10. Senlis, cathedral, lintel with Resurrection of the Virgin.

French Gothic

11. Paris, N. Dame, Virgin portal, tympanum.
12. Chartres, cathedral, south transept, statue of Christ.
13. Reims, cathedral, two of the five Types of Christ.
14. Chartres, cathedral, north transept, St. Modesta.
15. Amiens, cathedral, statue of St. Firmin.
16. Amiens, cathedral, reliefs of Virtues & Vices, and Calendar.
17. Reims, cathedral, north transept, two statues of apostles.
18. Amiens, cathedral, south transept, Virgin of Golden Portal.
19. Reims, cathedral, Annunciation & Visitation.
20. Bourges, cathedral, Last Judgment.
21. Strassburg, cathedral, statues of Church & Synagogue.
22. Paris, N. Dame, panel from choir-screen.
23. Paris, N. Dame, statue of Virgin in the choir.
24. St. Denis, Tomb-statue of Charles V.
25. Dijon, Chartreuse de Champmol, Puits de Moise.

Spanish Romanesque

26. Santiago de Compostella, Puerta della Gloria.

German Romanesque

27. Hildesheim, Bernward Column.

28. Bamberg, cathedral, Choir of St. George, apostle & prophet.
German Gothic
29. Bamberg, cathedral, statues of Adam & Eve.
30. Bamberg cathedral, Sibyl.
31. Naumburg, cathedral, statues of Ekkehard & Uta.
32. Nuremberg, St. Lorenzkirche, West portal, reliefs.
33. Cologne, cathedral, statues of Christ & Virgin in choir.
Flemish Romanesque
34. Liège, St. Barthélemy, Font by Lambert Patras.
Italian Romanesque
35. Parma, cathedral, Deposition, relief by Antellami.
36. Pistoja, S. Bartolommeo, pulpit, relief by Guido da Como.
37. Capua, Portrait head of Pietro delle Vigne.
38. Ravello, Sigilgaita head.
39. Rome, S. Paolo, detail of decoration of cloister.
Italian Gothic
40. Pisa, baptistery, pulpit, reliefs by Niccolò Pisano.
41. Pistoja, S. Andrea, pulpit, figure & relief by Giovanni Pisano.
42. Orvieto, S. Domenico, Tomb of Cardinal de Braye.
43. Florence, baptistery, bronze gates by Andrea Pisano.
44. Florence, Or San Michele, tabernacle by Orcagna.
English Gothic
45. Wells, cathedral, figures from the façade.
46. Beverly, Percy Tomb, "Christ with the Soul."

Report of Committee on Resolutions:

DAVID M. ROBINSON, Chairman.

The following resolutions were presented and adopted:—

Resolved that we, the members and friends of the College Art Association of America, desire to express our great regret at the retirement of President John Pickard. We owe an especial debt to him and hereby record our gratitude for his sacrifices and his devotion to the interests of the Association. He took office when it was young and not yet firmly established and with his energy and optimistic faith put it on a firm basis and gained for it an enviable reputation in the scholarly and educational world. He has given almost all his leisure for five years to the work of the Association, and under his leadership, in spite of the difficulties of the period of the war, the membership has increased to more than two hundred. He inaugurated the Bulletin, of which there have already been published four numbers, containing papers and proceedings which would do credit to any scientific society. The success of the College Art Association is due primarily to his unrelenting efforts, common sense, and conscientious hard work. A resolution cannot do justice to Professor Pickard's achievement but we desire to have formal recognition of it on record.

Resolved that we, the members and friends of the College Art Association of America, tender our sincere thanks to Director Robinson and the Trustees of the Metropolitan Museum of Art for their generosity in welcoming us to the Museum and in placing Class Room

A at our disposal. We desire also to thank most heartily the National Arts Club for their kindness in opening their dining room for the two dinners of the Association. We express our great gratitude to Mr. George Grey Barnard for permission to visit the Barnard Cloisters; to the Macbeth, Montross, and Daniel Galleries for the privilege of viewing their collections; and to the Montross Galleries for serving tea. Lastly, especial thanks should be recorded to Professor Louis Weinberg, Chairman of the Local Committee on Arrangements, and Mr. Edwin M. Blake, Miss Christine Reid, and Mr. Kniffen, who have spared no pains for our happiness and comfort.

The following motions introduced by George B. Zug were voted:—

Moved that the President appoint a Committee on Publicity, consisting of three members, to be active through the year and to co-operate in advance with a fourth member of such Committee at the city in which the Association meets next year, and that this new member be appointed by action of the Committee on Publicity in consultation with the President.

Moved that the president be authorized to appoint a Committee on Coöperation with other organizations whose purpose it is to stimulate and elevate the teaching and understanding of art in the schools.

Report of Committee on Nominations:

GEORGE B. ZUG, Chairman.

President: David M. Robinson; Vice-President: Paul J. Sachs; Secretary-Treasurer: John Shapley; Directors: John Pickard and George B. Zug.

No other nominations were made and these officers were unanimously elected.

The College Art Association of America

AN ORGANIZATION FOR THE ADVANCEMENT OF THE STUDY OF THE FINE ARTS IN AMERICAN COLLEGES AND UNIVERSITIES.

OFFICERS 1919-1920.

President	David M. Robinson <i>Johns Hopkins University</i>
Vice-President	Paul J. Sachs <i>Harvard University</i>
Secretary and Treasurer	John Shapley <i>Brown University</i>

DIRECTORS.

Edith R. Abbott	<i>Metropolitan Museum</i>
William A. Griffith	<i>University of Kansas</i>
John Pickard	<i>University of Missouri</i>
Holmes Smith	<i>Washington University</i>
Ellsworth Woodward	<i>Sophie Newcomb College</i>
George B. Zug	<i>Dartmouth College</i>

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II. Books for the College Art Library:

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III. Reproductions for the College Museum and Art Gallery:

David M. Robinson, Chairman, *Johns Hopkins*; Edith R. Abbott, *Metropolitan Museum*; C. R. Morey, *Princeton*; John Shapley, *Brown*; Clarence Ward, *Oberlin*.

IV. Time and Place:

C. R. Morey, Chairman, *Princeton*; Davidson M. Robinson, *Johns Hopkins*.

V. Nominations:

John Pickard, Chairman, *Missouri*; F. J. Mather, Jr., *Princeton*; Ellsworth Woodward, *Sophie Newcomb*.

VI. Legislation:

H. E. Keyes, Chairman, *Dartmouth*; A. R. Bossange, *Carnegie Institute of Technology*; G. H. Chase, *Harvard*; Edward Robinson, *Metropolitan Museum*.

VII. Investigation of Art Education in American Colleges and Universities:

Holmes Smith, Chairman, *Washington*; Alice V. V. Brown, *Wellesley*; C. R. Post, *Harvard*; Ellsworth Woodward, *Sophie Newcomb*.

VIII. Publications:

David M. Robinson, Chairman, *Johns Hopkins*; Alfred M. Brooks, *Indiana*; Arthur W. Dow, *Columbia*; F. J. Mather, Jr., *Princeton*; John Pickard, *Missouri*; A. K. Porter, *Yale*; Paul J. Sachs, *Harvard*; John Shapley, *Brown*.

IX. Research Work and Graduate Teaching in Art:

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X. Exhibitions:

George B. Zug, Chairman, *Dartmouth*; G. W. Eggers, *Chicago, Ill.*; Duncan Phillips, *Washington, D. C.*; John Pickard, *Missouri*; D. F. Platt, *Englewood, N. J.*; Paul J. Sachs, *Harvard*.

XI. Publicity:

George B. Zug, Chairman, *Dartmouth*; F. J. Mather, Jr., *Princeton*; Paul J. Sachs, *Harvard*.

XII. Coöperation with other Organizations:

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Sachs, Paul J., Harvard University, Cambridge, Mass.
 Sahm, Marie, Colorado College, Colorado Springs, Colo.
 Shapley, John, Brown University, Providence, R. I.

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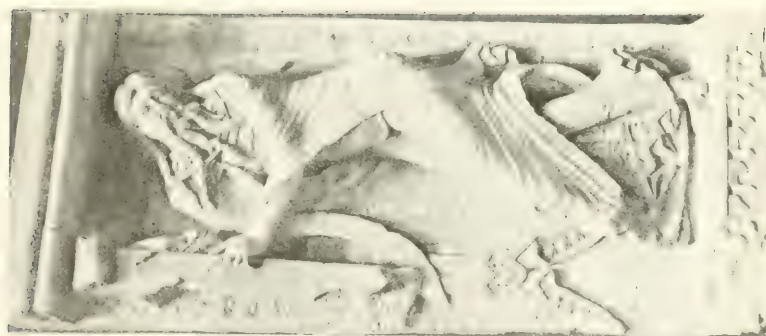
Abbot, Edith R., Metropolitan Museum, New York City.
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 Ankeney, John S., University of Missouri, Columbia, Mo.
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 Boalt, Marian G., 26 Cortland St., Norwalk, Ohio.
 Boeker, Mrs. Elna C., Hunter College, New York City.
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 Boston Athenaeum, Boston, Mass.
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 Burke, Robert E., University of Indiana, Bloomington, Ind.
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 Bryn Mawr College Library, Bryn Mawr, Penna.
 Bye, Arthur E., Bryn Mawr College, Bryn Mawr, Penna.
 Carleton College Library, Northfield, Minn.
 Carnegie Institute of Technology, Pittsburgh, Penna.
 Carnegie Library of Pittsburgh, Pittsburgh, Penna.
 Carnegie Public Library, Ottawa, Canada.
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 Carroll, Mitchell, The Octagon, Washington, D. C.
 Carruth, Charles T., 4 Fayerweather St., Cambridge, Mass.
 Carter, Luella, Bellevue College, Bellevue, Neb.
 Carter, Rev. James, Lincoln University, Chester Co., Penna.
 Chandler, Anna C., Metropolitan Museum, New York City.
 Chase, George H., Harvard University, Cambridge, Mass.
 Chicago, University of, Chicago, Ill.
 Child, Catherine B., School of Fine Arts & Crafts, 126 Mass. Ave.,
 Boston, Mass.
 Chipman, Minnie E., College of Hawaii, Honolulu, I. H.
 Christensen, Edwin O., Ohio State University, Columbus, Ohio.
 Church, J. E., Jr., University of Nevada, Reno, Nevada.
 Churchill, Alfred V., Smith College, Northampton, Mass.
 Clark, Arthur B., Leland Stanford Jr. University, Palo Alto, Cal.
 Clark, Marion E., Smith College Art Gallery, Northampton, Mass.
 Cleveland Public Library, Cleveland, Ohio.
 Cobb, Ethelyn P., Elmwood School, 213 Bryant St., Buffalo, N. Y.
 Colgate University Library, Hamilton, N. Y.

Columbia University Library, New York City.
Cossit Library, Memphis, Tenn.
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Dow, Arthur W., Columbia University, New York City.
Dutch, George S., George Peabody College, Nashville, Tenn.
Edgell, George H., 9 Traill St., Cambridge, Mass.
Ege, Otto F., Pennsylvania Museum, Philadelphia, Penna.
Eldred, Mabel D., R. I. State College, Kingston, R. I.
Ernesti, Richard, Pennsylvania State College, State College, Penna.
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Fowler, Eva, Box 234, Sherman, Texas.
Fowler, Harold N., Western Reserve University, Cleveland, Ohio.
Freeman, Lucy J., Wellesley College, Wellesley, Mass.
Froehlicher, Hans, Goucher College, Baltimore, Md.
Galbraith, Elizabeth, 403 Lafayette Ave., Fayetteville, Ark.
Gale, Walter R., Baltimore City College, Baltimore, Md.
Godwin, Blake-More, Toledo Museum of Art, Toledo, Ohio.
Grant, Blanche C., University of Nebraska, Lincoln, Neb.
Griffith, W. A., University of Kansas, Lawrence, Kans.
Grinnell College Library, Grinnell, Iowa.
Grosvenor Library, Buffalo, N. Y.
Grummann, Paul H., University of Nebraska, Lincoln, Neb.
Hall, Mary L., Western College for Women, Oxford, Ohio.
Harvard University Library, Cambridge, Mass.
Heath, Ella, Baker University, Baldwin, Kans.
Hedley, R. W., Edmonton Public Schools, Edmonton, Alberta.
Hekking, W. M., University of Kansas, Lawrence, Kans.
Hill, Harriett A., Cedar Crest College for Women, Allentown, Penna.
Hincks, Harvey S., 14 Cooke St., Providence, R. I.
Hoboken Free Public Library, Hoboken, N. J.
Holden, Mrs. Hendrick, 1100 James St., Syracuse, N. Y.
Holmes, Jessie R., Knox College, Galesburg, Ill.
Houston Lyceum and Carnegie Library, Houston, Texas.
Howard, Rossiter, Art Institute, Minneapolis, Minn.
Huddleston, E. T., New Hampshire College, Durham, N. H.
Humphreys, Sally T., Ohio Wesleyan University, Delaware, Ohio.
Hyde, Gertrude S., Mt. Holyoke College, South Hadley, Mass.
Myde, Mary E., Teachers' College, Cincinnati, Ohio.
Indiana State Library, Indianapolis, Ind.
Indiana State Normal School Library, Terre Haute, Ind.

- Jersey City Free Public Library, Jersey City, N. J.
Jewett, Almira, University of North Dakota, Grand Forks, N. D.
Kallen, Deborah, Museum of Fine Arts, Boston, Mass.
Kellogg, Elizabeth R., Cincinnati Museum Assn. Cincinnati, Ohio.
Kennedy, Clarence, Smith College, Northampton, Mass.
Keyes, Homer E., Dartmouth College, Hanover, N. H.
Keffner, Mary, Lake Erie College, Painesville, Ohio.
Kelley, Charles F., Ohio State University, Columbus, Ohio.
Kelley, J. Redding, College of the City of New York, New York City.
Ketcham, Mary, Syracuse University, Syracuse, N. Y.
Knopf, Nellie A., Woman's College, Jacksonville, Ill.
Kriehn, George, Columbia University, New York City.
Laird, Warren P., University of Pennsylvania, Philadelphia, Penna.
Lake, Edward J., University of Illinois, Urbana, Ill.
Lauber, Joseph, Columbia University, New York City.
Lent, Frederick, Elmira College, Elmira, N. Y.
Levy, Florence N., 41 W. 83rd St., New York City.
Linneman, Alice A., 305 Jefferson St., St. Charles, Mo.
Ma Soo, 615 Fifth Ave., New York City.
Manchester City Library, Manchester, N. H.
Mann, Frederick M., University of Minnesota, Minneapolis, Minn.
Marquand, Allan, Princeton University, Princeton, N. J.
Mather, Frank J., Jr., Princeton University, Princeton, N. J.
McAdory, Margaret, University of Alabama, Birmingham, Ala.
Metropolitan Museum Library, New York City.
Miami University Library, Oxford, Ohio.
Minneapolis Institute of Arts, Minneapolis, Minn.
Minnesota University, Division of Home Economics, Minneapolis, Minn.
Moore, Edith H., Wellesley College, Wellesley, Mass.
Moore, Muriel, Mont. State College of Ag. and Mech. Arts, Bozeman, Mont.
Morey, Charles R., Princeton University, Princeton, N. J.
Morse, Alice C., Central High School, Scranton, Penna.
Municipal University of Akron, Akron, Ohio.
Myers, E. E., Marshall College, Huntington, W. Va.
Nebraska, University of, Lincoln, Neb.
Nelson, Clara A., Ohio Wesleyan University, Delaware, Ohio.
Neus, Englebert, College of the City of New York, New York City.
New York Public Library, New York City.
Newark Free Public Library, Newark, N. J.
Niemyer, John H., Yale Art School, New Haven, Conn.
Nye, Mrs. Phila C., 7½ Greenholm, Princeton, N. J.
Oakes, Eva M., Oberlin College, Oberlin, Ohio.
O'Donnell, Agnes M., 140 Claremont Ave., New York City.
Oregon State Library, Salem, Ore.
Oregon, University of, Eugene, Ore.
Partridge, Charlotte R., Milwaukee Downer College, Milwaukee, Wis.
Pattee, Loueen, University of Cincinnati, Cincinnati, Ohio.
Paul, Gertrude, 2210 N. Charles St., Baltimore, Md.
Perine, Eunice A., New York State College for Teachers, Albany, N. Y.

- Perry, Helen, 1441 Logan St., Denver, Colo.
 Phillips, Duncan, 1600 21st St., N. W., Washington, D. C.
 Platt, Dan Fellows, Englewood, N. J.
 Poland, Reginald, Denver Public Library, Denver, Colo.
 Pomona College Library, Claremont, Cal.
 Pope, Arthur, Harvard University, Cambridge, Mass.
 Porter, Arthur K., Yale University, New Haven, Conn.
 Post, Chandler R., Harvard University, Cambridge, Mass.
 Potts, Elizabeth, Christian College, Columbia, Mo.
 Powers, H. H., University Prints, Newton, Mass.
 Powers J. H., University Prints, Newton, Mass.
 Providence Public Library, Providence, R. I.
 Purdue University Library, LaFayette, Ind.
 Purdum, M. Bertha, Ohio Wesleyan University, Delaware, Ohio.
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 Rice Institute Library, Houston, Texas.
 Robinson, Alice, Ohio State University, Columbus, Ohio.
 Robinson, David M., Johns Hopkins University, Baltimore, Md.
 Robinson, Edward, Metropolitan Museum, New York City.
 Rogers, Mary G., New York Training School for Teachers, New York City.
 Root, Ralph R., University of Illinois, Urbana, Ill.
 Roselli, Bruno, Adelphi College, Brooklyn, N. Y.
 Rowe, L. Earle, R. I. School of Design, Providence, R. I.
 Ryerson Library, Art Institute of Chicago, Chicago, Ill.
 Sachs, Julius, Columbia University, New York City.
 St. Xavier Academy, 4928 Cottage Grove Ave., Chicago, Ill.
 St. Catherine, College of, St. Paul, Minn.
 St. Louis Public Library, St. Louis, Mo.
 St. Paul Public Library, St. Paul, Minn.
 Salem State Normal School, Salem, Mass.
 Sargent, Walter, University of Chicago, Chicago, Ill.
 Savannah Public Library, Savannah, Georgia.
 Scott, Jeannette, Syracuse University, Syracuse, N. Y.
 Seattle Public Library, Seattle, Wash.
 Senseny, George, Smith College, Northampton, Mass.
 Sheerer, Mary G., Sophie Newcomb College, New Orleans, La.
 Skinner, Stella, Northwestern University, Evanston, Ill.
 Smith, Anna E., Bowdoin College, Brunswick, Maine.
 Smith, Edna K., 14 W. 84th St., New York City.
 Smith, Gertrude R., Sophie Newcomb College, New Orleans, La.
 Smith, Holmes, Washington University, St. Louis, Mo.
 Smith, Louise J., Randolph Macon Woman's College, Lynchburg, Va.
 Smith, Mrs. Susan M., Mills College, Mills College P. O., Cal.
 Spencer, Eleanor P., Mt. Holyoke College, South Hadley, Mass.
 Sprague, Elizabeth, Fairmount College, Wichita, Kans.
 Stahl, Marie L., Ohio University, Athens, Ohio.
 Straight, Bertha K., 138 Newbury St., Boston, Mass.

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- Strong, Beulah, Smith College, Northampton, Mass.
Sumner, John O., 225 Marlborough St., Boston, Mass.
Tilton, Martha L., Elmira College, Elmira, N. Y.
Tonks, Oliver S., Vassar College, Poughskeepsie, N. Y.
Treganza, Ruth R., 110 Morningside Drive, New York City.
Tryon, D. W., 1 W. 64th St., New York City.
Underhill, Gertrude, Cleveland Museum of Art, Cleveland, Ohio.
Vassar College Library, Poughkeepsie, N. Y.
Walker, C. Howard, 71 Kilby St., Boston, Mass.
Walton, Alice, Wellesley College, Wellesley, Mass.
Ward, Clarence, Oberlin College, Oberlin, Ohio.
Warner, Annette J., Cornell University, Ithaca, N. Y.
Washington University Library, St. Louis, Mo.
Webster, S. E., N. Y. Training School for Teachers, New York City.
Weinberg, Louis, College of the City of New York, New York City.
Wellesley College Art Department, Wellesley, Mass.
Wells, Edna M., Hunter College, New York City.
Weston, Karl E., Williams College, Williamstown, Mass.
Wetmore, Mary M., University of Illinois, Urbana, Ill.
Whittemore, Mrs. L. D., Washburn College, Topeka, Kans.
Wittenberg College Library, Springfield, Ohio.
Woodward, Ellsworth, Sophie Newcomb College, New Orleans, La.
Woodward, William, Tulane University, New Orleans, La.
Worcester Art Museum Library, Worcester, Mass.
Wright, Theodore L., 839 Church St., Beloit, Wis.
Wykes, A. G., Hunter College, New York City.
Yale University Library, New Haven, Conn.
Zantzinger, C. C., 112 S. 16th St., Philadelphia, Penna.
Zug, George B., Dartmouth College, Hanover, N. H.



*Fig. 1—SOUILLAC, CHURCH:
PROPHET.*



Fig. 2—LONDON, BRIT. MUS.: LAURE VITAE.



Fig. 3—TOULOUSE, ST. SER-
NIN: CHRIST.



Fig. 4—ORLÉANS, MUSEUM:
CHRIST.



Fig. 5—PARIS, BIBL. NAT.: ST. MARK.



Fig. 6—ZURICH, NATIONAL MUSEUM:
IVORY PLAQUE.



Fig. 7—UTRECHT, UNIVERSITY LIBRARY: UTRECHT PSALTER.



Fig. 8—HEIDELBERG, UNIVERSITY LIBRARY: SACRAMENTARY.



Fig. 9—TREVES, CITY LIBRARY: CODEX EGBERTI.



Fig. 10—MODENA, CATHEDRAL: STORY OF GENESIS.

The Art Bulletin

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Supply and Demand

by ELLSWORTH WOODWARD

SOME months ago I suggested to our president that the interest—one might say anxiety—voiced by many magazine writers in what appears to be a shortage in practical results on the part of the art schools, would be a profitable subject of inquiry.

With his customary swiftness in disposing of such matters, Dr. Pickard requested the present writer to make the inquiry. What follows is the outcome of a questionnaire directed to a considerable number of manufacturers who employ designers, and whose business is of such importance as to give their opinion authority.

The number of replies was somewhat disappointing, although one readily appreciates that the nature of such an inquiry might involve more time and consideration than could be given at the moment, and also that the proper person to make a reply might not be available at the time. However, sufficient material came to hand from these sources, together with the flotsam of the press and the writer's personal experience, to seem worth presenting.

It is well known that there are two types of art schools in the country. One concerns itself with the education of those who purpose following the pictorial arts. These usually include sculpture and sometimes architecture. The other school devotes itself to training designers, and those who are to pursue the manual arts. Both schools often combine all these objects; but our present inquiry, following the suggestion of the economists, is with the school of design.

It is said that there are not enough of such schools and that the graduates of those we have are not definitely prepared to meet the needs of industry.

In this connection the published statements of the Woman's Wear Company are very interesting. Three

years ago this energetic company instituted a competition in silk design and it has continued to do so each following year.

The outcome of these competitions has been commented upon by representatives of thirteen important manufacturing concerns. I quote a number of these comments as they appeared in the report published by *Woman's Wear*.

Mr. Bret of Marshall Field Co. says of the 280 designers who submitted work, that the success of this venture gives ground for hope "that the United States will be recognized as a world style creating center, and will thus enable our American-made productions to be illustrative not only of successful mechanical achievement, but also of an art that is typically American."

J. A. Migel & Co. says: "The fact that I purchased a considerable number of designs is a certain indication of what I think of this exhibition. The knowledge that we have such artists among us should be enough; the problem of developing them belongs to industry. I am happy to say that the designs bought were not only artistically successful, but were also a striking commercial success. The work of all the schools reflects credit upon them."

Mr. Hanson of Mallison & Co. says: "This collection of designs is infinitely superior to anything I have seen in Europe in past years."

Roessel & Co. says: "The artists have not only produced beautiful ideas but have put them into practical form. They have mastered the machine technique and have acquired a style that is simply remarkable."

Mr. Scheier of Rosenthal & Co. says: "I never thought I would see such a collection of designs in America by Americans. It is no strain on my memory to recall the time when we arranged our patterns from foreign samples, and this is a stupendous improvement. No one can doubt the ability to design in America, and we can only wonder at the lack of vision which kept us at the old methods so long. We feel personally grateful

to the various forces that have disturbed themselves for our benefit."

The foregoing quotations from such representative users of design seem to dispose of two current criticisms at once, that is, that designers are not available and that schools have failed to prepare their pupils to meet practical requirements.

Two hundred and eighty designers seems a good number to be brought forward by a call for a single kind of design. Moreover, we note that the designs are declared to be beautiful, to possess fresh and original qualities, to be practical and a commercial success.

These conclusions, so frankly expressed by practical men, seem also to cast doubt on the wisdom of the request so often urged on schools to fit their pupils to the precise usage of the various industries.

Every teacher of experience realizes that his greatest difficulty and most urgent responsibility is to secure power and breadth in the training of his students. If, in his desire to meet the quite natural desire of the pupil to specialize and secure a paying position as soon as possible, the teacher narrows his exercises to apply to the tricks of some prospective trade, the student will be incapable of leadership, even in the craft of his choice, for all the crafts governed by taste depend for their very life upon the power to grow and change with the hour which supports them.

It is, of course, necessary for the school to be conscious of a definite relation between its pupil's studies and their future application, but to give this idea precedence is, to say the least, a danger. There is also an unfair economic burden in the suggestion that the school employ the services of the factory expert to give finishing courses in the specialties, in order to smooth the passage of the pupil from school to employment. Is it not fair to suppose that the few weeks necessary for the young designer to learn the short cuts and intensive methods of the factory would be better spent in the workshop itself?

Between the college graduate and the business world there has always been the same difficulty. The

satirical paragraphs in the newspapers which always appear at commencement time remind us of it. To bridge this gulf the business college was devised. Even the orthodox college has its department of business administration, and no doubt all these contrivances have their value, but we also know that much remains for the young man to learn when he enters the office, which somehow the school could not impart, and as I firmly believe should not be expected to impart in full measure.

We may, I think, dismiss our fears, if we have any, as to whether the art school is awake to its responsibility. All school directors of my acquaintance have an attentive ear to the ground, alert to the tremors of criticism, and active in the introduction of improvements.

But to return to my inquiry. The great manufacturing house of Gorham & Co. tells me that the major part of its designing and craft working force is made up of Americans, trained in American schools. Everyone knows the output of this tremendous shop, and many are also familiar with the friendly and helpful relations it has toward the art school which was founded some forty years ago in its home town. The reactions in this instance are easy to trace and of a satisfactory nature.

In reply to my questions, Mr. H. B. Cheney said in part: "Paris was before the war, and probably will be again, the style center of the world, which does not mean that all style was created in Paris, but only that it was there brought to a focus. It is extremely probable that in the future the sharpness of the focus will be somewhat disturbed and that America may have more to say about her own fashions. If she does, it is very certain that these tendencies and results will be quickly effective in Paris and to some extent in other fashion centers. The United States has for a long time done much in originating styles for itself. During the war we have been forced to rely very much upon our own resources and Paris has come to depend very much

upon us for suggestions. It is nevertheless true that probably in the future, as in the past, Paris will be situated more advantageously for designers than will New York or any other center, this being because the markets supplied through Paris are wider and more extended than those which can be reached through New York, London, or Vienna. Consequently, designers in Paris will have a larger field to absorb their work and can therefore get more work than in New York. The number of designers that can be permanently employed and occupied by manufacturers in the United States is very small. If one designer finds a good idea and spreads it broadcast throughout the whole textile field, nobody wants it. Consequently his opportunities are somewhat limited. It is our opinion that a designer, unless he or she can be permanently employed by one of the very few people who have forces of designers, will of necessity need to be much more versatile than a Paris designer in order to succeed. It is improbable that one designer could concentrate on silk designing alone, for instance, with success. Such a designer with real talent can make a place for himself provided he keeps more or less to one manufacturer in each class and tries to cover a number of fields, such as silk designing, cotton designing, pottery, china decoration, and illustration. You will see that this needs higher and more trained types of designers than those who can make a success in Paris. That is the difficulty of our situation."

Speaking for Tiffany & Co., Mr. Albert A. Southwick writes: "The old apprenticeship system all over the world is gradually passing, and the only substitute now in sight is the technical school. For the trades in which a jewelry or silversmithing house is interested, an instruction period such as is offered by a school is generally too short. Some hours a week for only part of the year can hardly be expected to give results that are comparable with those of the old system when the attendance lasted for years with long hours of daily and often continual contact with the masterworkman.

“The only apparent reason why European schools should show rather better results than American, is that the harder conditions of life generally existing naturally produce habits of attention and industry which have not been imposed here in the same degree on either the schools or the scholars. The decrease in the skill of the worker and the consequent decline in quality of product which are universally recognized and deplored, are the results of changed conditions to which modern life has not yet become adjusted. The workman uses more complicated tools than were known in earlier times—the production has been greatly increased—and the separation of the processes of manufacture has tended to produce a workman, and has introduced a new factor, the designer, who is oftentimes not familiar with the execution of the work as a whole.

“In Tiffany & Co’s designing work all the several heads of departments are native born, and they have the great advantage of being continually associated with the execution of the work designed under their direction. Nearly, if not quite, all the designers employed by the house are native Americans. Very few among them have had any considerable art school training in the sense in which the term is generally used.”

It would extend this paper unduly to quote further from many opinions expressed by men apparently quite conscious of the economic relation between school and business, and anxious to contribute their share in appropriating the full value to America of the unprecedented opportunity the times have brought about.

One remark already quoted from Mr. Migel stands out with arresting sharpness, “The knowledge that we have such artists among us should be enough; *the problem of developing them belongs to industry.*” Many art educators have said this, and all of us have more or less felt the need of something which the school could not supply.

Nine-tenths of the efforts to incorporate intensive methods into the school and to place the trained pupil in a job for which he or she was trained have come from

the school. The manufacturer maintained a critical if not a hostile attitude, demanding from the school a skilled designer and craftsman, fully acquainted with his special methods, forgetting that his is only one of a dozen specialties, and that the school by such reasoning would be compelled to maintain a dozen factories with as many experts in addition to its essential art training facilities.

When industry as a whole realizes that its present status and its future expansion have intimate connection with the school, we shall see a change no less than the shifting of the art center of the world. It is squarely up to the manufacturer.

There is one other equally pressing duty, and this rests squarely on the merchant and the public, namely, the word *imported* must be assigned only its face value. At present this word is imbedded in our minds as a synonym for *superior*. It tips the scales of judgment in favor of purchase even at an advanced price. When the product in question *is* superior in beauty and workmanship, we will regretfully acquiesce in the justice of the situation. But it is not always true, and it is increasingly less true.

There should be a consistent propaganda of education to break down this artificial standard. Educate at home, make at home, buy at home, and rejoice at home and abroad in our capacity to do at least as well as the other self-respecting nations of the earth.

A Student of Ancient Ceramics, Antonio Pollajuolo

by FERN RUSK SHAPLEY

WHEN one speaks of the influence of the antique upon Renaissance figurative art, it is classical sculpture, either in relief or in the round, that is immediately called to mind; and it is this phase of ancient art, almost exclusively, that students of the Renaissance have considered. For obvious reasons, this attitude is largely justifiable. Renaissance literature and art both give rich evidence of enthusiasm for classical sculpture. Many examples of ancient sculpture that have come down to us are mentioned in Renaissance records of contemporary collections and are copied, often quite frankly, in Renaissance sculpture and painting. Such precise reference is comparatively rare in the case of classical painting and minor arts. Yet it is hard to understand why, in the analysis of the Renaissance debt to antiquity, arts of so much importance originally and of such abundant bequest to posterity as Greek vase painting and Arretine pottery should so long have been left almost entirely out of account.

Already in the 13th century Greek vases of ancient importation, as well as great quantities of the red Arretiné ware, had been excavated and were highly prized in Italy. Both were at that time and even much later thought to be of indigenous production. Ristoro d'Arezzo describes in his *Libro della composizione del mondo*, completed in 1282, the finds of vases in his native town. On these vases, he tells us, "were designed and modelled all varieties of plants, leaves, and flowers, and all kinds of animals imaginable . . . they are in two colors, blue¹ and red, but usually red." "On some are modelled figures, thin and fat, laughing and

1. Although he writes *blue* (*azzurro*) instead of *black*, Ristoro is undoubtedly referring to Greek pottery here. He is not aware that the black and red painted vases are Greek but considers them, as

crying, dead and living, old and young, nude and draped . . .” There is no limit to Ristoro’s praise of the work on the vases, and it seems that others of his time were equally enthusiastic, for he says that “when sculptors, designers, or other connoisseurs got any of these fragments, they looked upon them as sacred relics, marvelling that human nature could rise to such a height in refinement, in craftsmanship, in the form of these vases, in the colors, and in the modelling; and they say: ‘those craftsmen were divine’ or ‘those vases fell from heaven.’”² In the middle of the 14th century Giovanni Villani gives us a brief notice of the continued discovery of Arretine ware;³ and about two centuries after Ristoro’s account Vasari, who follows Ristoro in thinking that the red and black painted ware is Arretine work, tells us of his grandfather Giorgio Vasari’s interest in the vases. Giorgio, according to the biographer, busied himself at the potter’s profession in Arezzo. Through his study of ancient vases he rediscovered the secret of their red and black coloring. He was also so fortunate as to unearth outside the town part of an ancient kiln, and, besides many fragments, he found there four whole vases, which he presented to Lorenzo the Magnificent upon the visit of that prince to Arezzo.⁴ Finally, a letter, published by Müntz, from one of Lorenzo’s agents at Venice tells of the proposed addition to Lorenzo’s collection of three antique vases which had recently been imported from Greece.⁵

With these last accounts we come to the time of the Renaissance painter with whom we are here concerned. This painter, Antonio Pollajuolo, had as the patron of some of his most characteristic work Lorenzo the

well as the examples in relief, a product of Arezzo. (See Schlosser in Austrian *Jahrbuch*, vol. XXIV, p. 154.)

2. Ristoro d’Arezzo, *Libro della composizione del mondo*. The Italian is repeatedly quoted, e. g., by Fabroni, *Storia degli antichi vasi fittili Aretini*, p. 12 ff. and by Schlosser, *op. cit.*, p. 152, note 2. An English version is given by G. H. Chase, *Loeb Collection of Arretine Pottery*, p. 9 and *Catalogue of Arretine Pottery* (Museum of Fine Arts, Boston), p. 4.

3. See Fabroni, *op. cit.*, p. 16.

4. Vasari’s *Lives*, trans. by G. de Vere, vol. III, p. 54 ff.

5. Müntz, *Les collections des Médicis au quinzième siècle*, p. 57.

Magnificent, whom we find interested in collecting ancient vases.

Now Antonio Pollajuolo's fame has rested chiefly on his realism. He was an innovator in Florentine art, basing his work upon a direct study of the human body made by dissection and by observation of movement. But with his undisputed original realism he combined peculiarities of movement and composition which find their prototypes in red-figured Greek vase paintings, and more especially in those of the "severe" period. Two considerations make it immediately clear that one cannot, however, as if it were a case of ancient sculptures, point to definite Greek vases as the ones from which any Renaissance painter has necessarily drawn his inspiration. In the first place, our records of individual vases do not date back so far as the Renaissance. In the second place, types of figures and forms of compositions, when once created by a Greek vase painter, became common property and were repeated again and again. In the case of Antonio Pollajuolo we have the additional fact that he was too deeply interested in anatomy to have slavishly copied the comparatively stereotyped, schematic vase figures.

The movement expressed in Antonio's paintings has always been their most noticeable feature and one of the most difficult to analyze, as witness the conflicting comments made upon it by critics. Berenson finds the artist "one of the greatest masters of movement that there ever has been, one of the ablest interpreters of the human body as a vehicle of life-communicating energy and exulting power."⁶ Maud Cruttwell, his most extensive biographer, speaks with enthusiasm of his scientific presentation of movement. "Never," she says, "have rapid movement, vehement gesture and the violence of brute force been better rendered . . . even Signorelli, Michelangelo, and Leonardo—those great masters of vehement movement—have never surpassed him. And he can be equally successful in rhyth-

6. Berenson, *Florentine Drawings*, vol. I, p. 19.



a b c

Fig. 1—ARCETRI, VILLA DELLA GALLINA: Detail of Fresco by Pollajuolo.

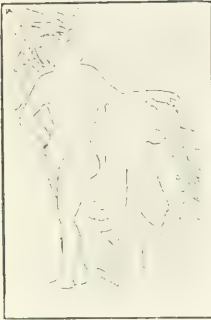


Fig. 2—WINGED FIGURE FROM A GREEK VASE (*mirror-wise*).

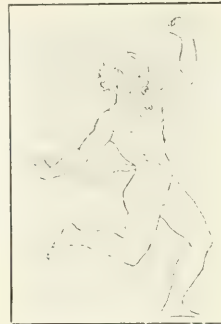
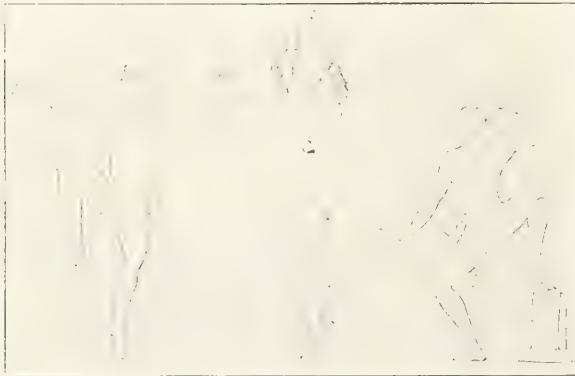


Fig. 3—SILENUS FROM A GREEK VASE (*mirror-wise*).



b a c d

Fig. 4—ARCETRI FIGURE (*Fig. 1, a*) Compared with Examples from Greek Vases.

mic as in rapid movement, in quiet as in violent action.” On the other hand, he is reproached by Crowe and Cavalcaselle for “rigid and exaggerated action,” for “affected action,” and for lack of grace in movement.⁸ Cox calls his figures ungainly⁹ and Perkins speaks of their extravagance and mannerism.¹⁰

These attitudes and movements of Antonio's figures, giving at once the impression of intense, realistic life and of unreal, superhuman contortion, are precisely the peculiarities that impress one in Greek vase paintings, particularly of the 5th century.

Let us look first at what remains of the sadly mistreated frescoes of the Villa della Gallina (in the grounds of the Torre del Gallo, Arcetri, near Florence), “works that are accepted as entirely by Antonio's own hand and as most characteristic of his genius” (Pls. V and VI, figs. 1 and 6). The similarity of these frescoes to the familiar subject of the Bacchic Dance in Greek vase paintings ought to strike one immediately. Of the manner in which the light-colored figures stand out against the dark background we shall speak later, as also of the dependence almost entirely upon line for the indication of form and muscle. But note now the extravagant movement of the bodies, how they seem to spring into the air, fall at once into the attitude the artist has chosen and remain fixed so. We have the peculiar sensation of witnessing the preceding movement rather than the usual sensation of anticipating the following action. Take, for example, the youth seen from the front (Pl. V, fig. 1, a and fig. 4, a; the latter is an outline drawing). The same paradox of static movement, as well as a striking similarity of contorted pose is found in the three figures taken from Greek vases and placed above and at the sides of the Pollajuolo

7. Cruttwell, *Antonio Pollajuolo*, pp. 28 and 40.

8. Crowe and Cavalcaselle, *History of Painting in Italy*, ed. Hutten, vol. II, pp. 375 and 377.

9. Cox, *Painters and Sculptors*, p. 21.

10. Perkins, *Tuscan Sculptors*, vol. I, p. 223.

dancer in fig. 4.¹¹ Comparison with the one at the right is particularly satisfactory because the position of the legs and of the arms corresponds most closely to the fresco figure. The motive of action, however, seems somewhat more closely paralleled in the other two, where there is no support under the upraised foot.

The beautiful forward-rushing figure in the fresco (Pl. VI, fig. 6), which seems to be the best preserved of the five, may also have been inspired by any one of many Greek types. It is shown here (Pl. VI, fig. 5) in outline drawing between two figures from the famous cylix in Cracow, which is assigned by Hartwig to Euphronius.¹² The wild abandon of the dance expressed by the Greek artist in the figure at the right with head thrown back and open mouth is a worthy model for any artist. Omitting every accessory detail, both the classical and the Renaissance work seem to have but one goal, the expression of the most vigorous, exhilarating movement; and it must be admitted that, in spite of his advanced anatomical knowledge, Antonio has not quite so nearly attained the goal as has Euphronius with his far more conventional means.

Though not so close to Antonio's figure in the expression of forward movement as are the figures of the Cracow cylix, the Silenus from a vase in the Hermitage (Pl. VI, fig. 7¹³) furnishes an interesting parallel for the position of the arms and legs, and the parallel is the more obvious when the figure is seen mirror-wise, as it is also shown here (Pl. V, fig. 3). With the upper part of the Silenus' body another of the figures of the fresco is more closely analogous (Pl. V, fig. 1, c). Here the body is seen more from the front, the arms and

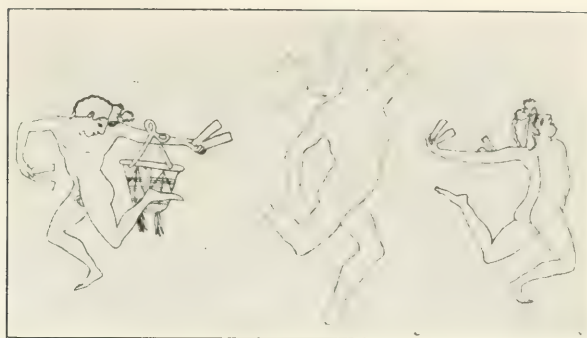
11. b, from a vase in the Ducal Museum of Gotha, *Élite des Monuments* . . . , vol. III, pl. 90.

c, from the volute crater in Arezzo, Furtwängler-Reichhold, *Griechische Vasenmalerei*, pl. 62.

d, from a vase in the Louvre, *Élite des Monuments* . . . , vol. IV, pl. 31.

12. Hartwig, *Die griechischen Meisterschalen* . . . , pl. XI.

13. *Compte-Rendu de la Commission Archéologique*, Atlas, 1869, pl. VI, 3.



b a c
Fig. 5—ARCETRI FIGURE (Fig. 6) Compared with Ex-
amples from a Greek Vase.



Fig. 6—ARCETRI, VILLA DELLA
GALLINA: Detail of Fresco by
Pollajuolo.



Fig. 7—SILENUS FROM A GREEK
VASE.

hands are arranged much as are those of the Silenus (Pl. V, fig. 3), and the peculiar movement, in which the forward rush of the body is interrupted by a backward swing, is repeated.

The standing female figure (Pl. V, fig. 1, b), which forms such a pleasing contrast with the dancing youths on either side, finds a more or less close parallel in a winged figure from an Attic crater with white painting (Pl. V, fig. 2¹⁴). The poses of the two are very much the same when one of them is seen mirror-wise, as is the vase figure here.

An ever recurrent peculiarity of Pollajuolo, the position of the hand turned back sharply at right angles to the wrist, is well illustrated in the Gallina frescoes. This peculiarity is no doubt very cogent in making the attitudes appear to some to be affected; but it does enhance the suggestion of tense, nervous movement. A similar effect is seen in many Greek vases, though Pollajuolo twists and contorts the fingers more. A particularly close parallel is on an early 4th century crater in Palermo.¹⁵ It should be compared with the arm and hand of the almost completely destroyed figure of the fresco (Pl. VI, fig. 6).

Two other paintings universally recognized as the work of Antonio are the little pictures in the Uffizi, presumably free replicas of the artist's large paintings of the same subjects, deeds of Hercules, executed in 1460 for Lorenzo de' Medici, who, we remember, had at least a few examples of Greek vases. The labors of Hercules were so commonly represented in classical art that there would have been no difficulty in finding a model. Many Roman sarcophagi are decorated with the subject. But there the hero is short, thick-set, and more compact in his movement. Here (Pl. VII, fig. 9), Hercules is tall and lean, with broad shoulders and narrow waist and a broad, striding movement—in short, the type of hero dear to the heart of the Greek vase painter. I need give for comparison only the familiar

14. Furtwängler-Reichhold, *op. cit.*, pl. 100.

15. *Ibid.*, pl. 59.

example on the volute crater in Arezzo, where the subject is Hercules combating the Amazons (Pl. VII, fig. 10¹⁶).

The same Hercules appears in the Rape of Dejanira in the Jarves collection at Yale University.¹⁷ And this type of figure is repeated in the man at the extreme left in the engraving of the Battle of the Nudes,¹⁸ as also in the study for this engraving (see below and Pl. VIII). Without stopping to illustrate in detail, the similarity of other parts of the engraving to Greek vase painting is apparent. The figure just at the right of the Hercules type runs with upraised club as do repeated examples on vases, and the striding movement throughout the whole composition suggests Greek prototypes.

In further connection with the Hercules type, we may consider the terra cotta bust of a young warrior in the Museo Nazionale, Florence.¹⁹ On the breastplate are modelled two groups representing deeds of Hercules. On the left he slays the Stympalian birds, and on the right he strangles the serpents. Aside from some similarity in the figures themselves to Greek vase paintings, the compositions, with their circular boundaries for the figures suggest the decoration on the interior of a cylix.

Antonio's drawing of Adam (Pl. VII, fig. 8, a²⁰), crutched on his hoe, gesticulating with his left hand and resting his right hand on his hip, strikes one as rather ludicrous. And yet this posture was quite the fashion among Greek artists (Pl. VII, fig. 8, b, c, d, e²¹). Again

16. *Ibid.*, pl. 61.

17. Illustrated in Sirén's *Catalogue of the Jarves Collection*, p. 112.

18. Illustrated in Cruttwell, *op. cit.*, pl. XXIII.

19. Illustrated *ibid.*, pl. XII.

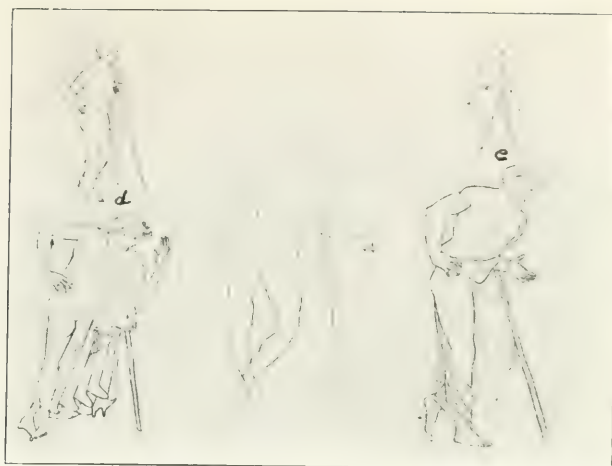
20. Given here in an outline copy. Illustrated in Berenson, *op. cit.*, vol. I, pl. XVI.

21. b, from a cylix in the Louvre, Hartwig, *op. cit.*, pl. LXVI.

c, from a vase in the Hamilton collection, *Collection . . . Hamilton* (1802), vol. III, pl. 34.

d, from a vase in the collection of M. de Paroi (1808), Reinach, *Peintures de Vases Antiques*, pl. 29.

e, from a vase in the Vatican, Reinach, *op. cit.*, pl. 43.



b a c
 Fig. 8—POLLAJUOLO'S DRAWING OF ADAM compared with
 Figures from Greek Vases.



Fig. 9—FLORENCE, UFFIZI: HER-
 CULES SLAYING THE HYDRA BY
 POLLAJUOLO.

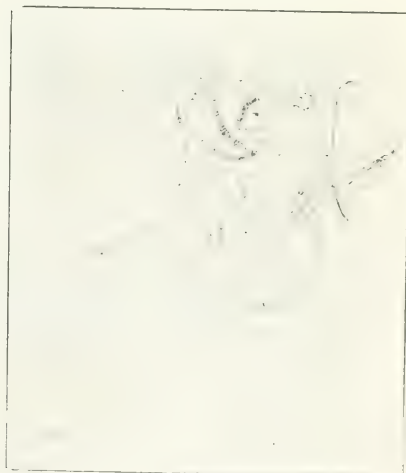


Fig. 10—HERCULES FROM A GREEK
 VASE.



CAMBRIDGE, MASS., COLLECTION OF MR. PAUL J. SACHS:
DRAWING BY POLLAJUOLO.

and again we find the pose; with legs crossed, cane under left arm, left arm free, right hand on hip the men stand at ease, discoursing with one another, watching the gymnastic sports, or directing the work of the bottega.

The more finished and far more beautiful drawing (evidently part of a study for the Battle of the Nudes) in the collection of Mr. Paul J. Sachs, Cambridge, is useful for our thesis (Pl. VIII). Not only in the almost entire reliance upon sharp, clear outline, with few interior markings, but also in the use of a solid dark background against which the figures stand out in reddish-brown bistre does the drawing give the striking effect of a red-figured Greek vase. The well-known drawing of a Prisoner Brought before a Judge, in the British Museum (Pl. IX, fig. 11), gives the same effect as Mr. Sachs' drawing; and for these features of red-figured Greek vase treatment attention should again be called to the frescoes from the Villa della Gallina, with their light-colored figures done almost entirely with sure, clear outline, and placed sharply against a solid dark ground (Pls. V and VI, figs. 1 and 6).

Turning to another branch of Antonio's activity, the sculptures on the tomb of Sixtus IV show little or none of the influence of painted Greek vases. But precisely these sculptures would lead us to believe that our artist was not blind to the entirely different beauties of the red Arretine ware, which we mentioned in the beginning. The charming Arretine vases with their softly modelled, graceful figures, their flying putti, their clinging drapery, and their rich garlands and other abundance of decoration must surely have been admired by many artists of the Renaissance.²² One of the most common subjects with which they are decorated is the symposium scene, in some such form of composition as we see it on a vase in the Boston Museum of Fine Arts (Pl. IX, fig. 12, a and b). Notice particularly the female figure who holds with her right hand a lyre resting upon her knee, while she turns her head to look over her shoulder at the man behind (Pl. IX, fig. 12, a).

22. Cf. Chase, *Loeb Collection of Arretine Pottery*, p. 34.

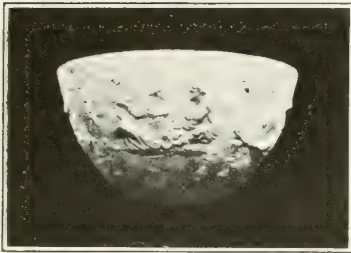
The similarity between this symposium figure and the personification of Perspective from Antonio's tomb of Sixtus IV (Pl. IX, fig. 13) needs no comment. With the other female figure on this vase (Pl. IX, fig. 12, b) Antonio's Theology from the Sixtus monument shows much likeness.²³ The flying angel appearing here at the left might well have been suggested by the flying putto motive of the Arretine vases.

Let me repeat that the particular vases here used for comparison are not put forward as those which Antonio Pollajuolo knew. Further, there is no intention of suggesting that all of his work was inspired either by Greek or by Arretine pottery decoration. In spite of these reservations, however, the relationships which have been traced may be helpful in making intelligible the contradicting impressions of the artist's productions—their fixedness and movement, their jerkiness and rhythm, their awkwardness and grace.

23. Illustrated in Cruttwell, *op. cit.*, pl. XLIV.



Fig. 11—LONDON, BRITISH MUSEUM: DRAWING BY POLLAJUOLO.



a



b

Fig. 12—BOSTON, MUSEUM OF FINE ARTS: ARRETINE VASE.

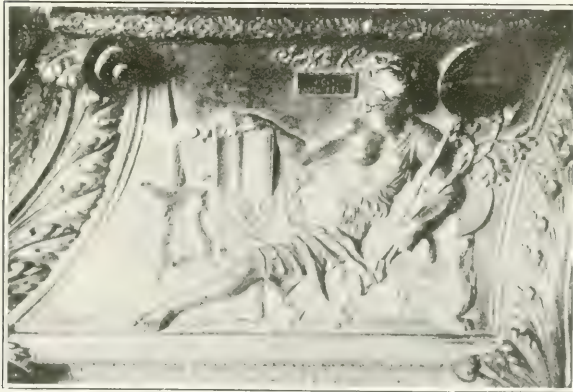


Fig. 13—ROME, ST. PETERS: RELIEF FROM THE TOMB OF SIXTUS IV BY POLLAJUOLO.

Antique Glass

by GUSTAVUS A. EISEN

GENERALITIES

ANTIQUE glass comprises vessels, beads, tiles, amulets, and other objects made of glass, inlaid with glass or otherwise decorated with glass. We may also include *glaze*, because the difference between glaze and glass relates principally to the manner in which it was employed. Glaze, paste, terracotta, porcelain, and similar substances were pliant when cold and moist. Glass, on the contrary, was made plastic by heat and fused by heat. Heat applied to paste made this substance hard. The term "paste" should on that account never be applied to glass and even the composite word *glass-paste* or *paste-glass* leads to confusion.

All objects made of antique glass deserve equal attention, careful study and scientific treatment. It is generally held that antique glass possesses only an artistic value, and in this sense it is exhibited in our museums and private collections. Although the decorative value of antique glass is very great, still we must now concede that such glass possesses other important qualities which make it an indispensable adjunct to historical, archaeological, and religious researches and which justify the most extensive collections.

The *artistic character* of antique glass relates to form, color, and technique, none of which have been equaled in modern times, but which could with profit be studied by our modern artists before they attempt to invent forms of their own. The colors of antique glass are softer and more harmonious than those now employed and thus they have inspired more than one prominent artist, decorator, and designer.

The *archaeological importance* is only now being fully understood. Both the form and color of antique glass underwent continual change, sometimes from year

to year, sometimes from generation to generation. Neither forms nor colors were repeated except at long intervals of time and then never with such an exactness that we may not readily separate the repetitions from the originals. On this account we now recognize that glass and glass beads furnish a more accurate means of dating the objects with which they were excavated than do coins, which were often hoarded up during generations.

The *historical and geographical value* of our glass depends upon the centralization of its manufacture in ancient times. Most of the ancient glass must have been made in Egypt, and only a limited quantity in Syria, Italy, Spain, and Gaul. From these centers the glass was distributed along trade routes, thus indicating the intercourse between different nations, and the manner in which they were dependent upon each other. With the glass and other merchandise went new ideas and improved manners and morals. The influence of beauty was often more lasting than that of the sword. The importance of glass in this respect is not confined to the Old World, but extends also to our American continents. Glass, as we all know, has been found in native tombs from Cape Horn to the Arctic and many efforts have been made to explain its provenance. It has even been suggested that the glass beads were brought here by the Norsemen, while others have held that the beads were manufactured here from "imported material." In order correctly to interpret the known facts, an intimate and correct knowledge of antique, mediaeval, and modern glass is necessary. It is far from illusory to assert that, if an intercourse between this country and the Old World existed in ancient times, this intercourse might best be verified by a study of the beads found in tombs. It has been stated that this assertion is greatly discounted by the presumed fact that the Venetians imitated the antique beads and that such imitations are undeterminable. This theory is wrong, however, from beginning to end, because the Venetians never knowingly imitated any antique beads. They had no knowledge

of such beads nor of the technique by which they were made. The earlier antique beads differ from the later ones to such an extent that they may be readily recognized, and only in case of plain, uncolored, spherical beads is there any difficulty of identification.

The *anthropological importance* of antique glass is highly interesting. As an example, it may be stated that beads of glass, fig-shaped, first appear in the tombs of the 9th to 8th century B. C., and thus corroborate the already established theory that the fig tree was introduced into the Mediterranean basin about that time. In this manner we find the date of an important economical event, confirmed by archaeological investigations. Similarly, the introduction of an especially large quantity of dates from Egypt into distant countries was accompanied by vessels of glass imitating the fruit and its coloring. In tombs of the fifth century B. C. in Syria, Egypt, and Carthage we find elaborate and sometimes very beautiful beads of glass representing Assyrians, Persians, Syrians, Greeks, Scythians, Gauls, Nubians, and other as yet unidentified races, probably those with which the Egyptians at that time came in contact. If we remember that this was the period of the Persian invasion, these finds become highly interesting and even important. We also find in the same tombs heads of sheep, goats, and other animals, probably such as were made known to the Egyptians by invading tribes. It has been possible to separate nearly forty distinct types of such heads so sufficiently well characterized and technically perfect as to be recognized with considerable certainty.

The *religious nature* of antique glass has not hitherto been insisted upon, so far as I know. Still, we must recognize its importance, because many glass vessels or representations on glass were intended to illustrate objects sacred to pagan, Christian, and Jew. In pagan glass we recognize vessels and other objects sacred to Bacchic rites. Among the Jewish religious objects we find the candlestick and the vessels of the Temple, perhaps even the "garden of delight" which

consisted of a decorative vine of gold with leaves and clusters. Among the Christian religious objects I have recognized chalices, mystic vases, the vessels of Joseph of Arimathaea, and various other legendary, traditional, and mystic objects reflecting upon the Passion of Christ, and upon the rites and traditions of the early Church. When compared with various representations on the walls of the catacombs, upon sarcophagi, stelae, and epitaphs, these objects receive an importance not hitherto suspected. They furnish us with material of which, so far, no one has made any special use.

The *educational value* of antique glass consists in its beauty of form and color, in the objects imitated or represented, which when explained to the undeveloped mind must stimulate it as does a fairy tale. The wonderful iridescence of antique glass, the marvelous harmony of even a fragment of mosaic glass, needs no explanation to be appreciated, and such specimens in the home or in the school would illuminate and gladden the heart. They would constitute a center of attraction and wonder to old and young. Art should be taught before morals, because art tends to improve morals, but morals do not necessarily create art. If the art of nations were taught instead of the wars of nations, the object of teaching and education would be more easily attained. The art of nations makes all nations akin, but the history of wars of nations has principally had the effect of creating enemies; art should be taught before anything else. In the writer's opinion no objects are better suited for that purpose than antique glass.

ARTISTIC, HISTORICAL, AND ARCHAEOLOGICAL PERIODS

Period of Glaze

The origin of glass is uncertain, but it seems probable that it developed from glaze. Glaze was already in use in Egypt about one thousand years before the first dynasty, the earliest objects covered with glaze being made of pottery and stone. The earliest glaze was pale green in color and of sufficient durability to have lasted to the present day. During the period of glaze,

great advance was made in technique, and in the 12th dynasty we find glaze which is both durable and beautiful. From that dynasty I have seen beads which, though made of paste and glazed, were almost as translucent as glass. Two Horus eyes dated from that dynasty, one in the University Museum in London, and the other in a New York collection seem actually to be of glass. But the date of these two objects is not indisputable and as no glass vessels have been found before the 18th dynasty we are forced to assume that it was not until that time that glass became generally known, even if it had been invented long before.

A study of glaze is of great importance, not only from a purely artistic point of view, but because it changed from time to time, sometimes improving, sometimes degenerating in quality, color, hardness and gloss. The glaze thus furnishes us with means of dating and identifying many objects, not otherwise determinable. During the 12th dynasty the glaze was almost imperishable, and beautiful in color. In the 8th and 9th centuries the glaze had degenerated to such an extent that its color is now hardly recognizable.

Period of Core-spun Glass

This name is suggested for the period during which vessels were produced by winding threads of plastic glass around a core of soft clay. The threads were later fused together, pressed and smoothed out, and finally the core was scraped out, thus setting free the interior cavity. In this manner all the earliest Egyptian glass vessels were produced, and continued to be produced until the time of the Ptolemies, when the technique of tube-blown glass was invented. All the earliest glass was opaque and milky owing to numerous bubbles in the matrix, which, far from detracting from its appearance, added softness and harmony to the colors. The period began with the invention of glass in the 18th dynasty, and lasted over one thousand years. In the course of this period various improvements and discoveries were made which led to the production of vessels and beads of glass of unsurpassed beauty of

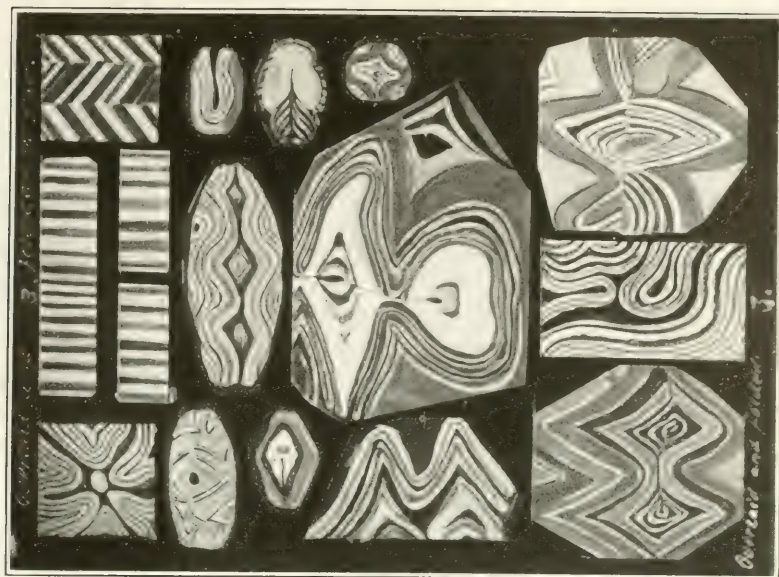
coloring. Pure white, transparent glass began to appear in the 9th to 8th century, but remained scarce for a long time and could only be employed for beads. The decoration of the surface consisted of "dragged" patterns of glass threads, rods, and bands. At first the eye-spots were plain without rings, but already during the 19th dynasty eye-spots with concentric rings became common. All such eye-spots were made by superposing successive drops of glass, and by rolling these out to a flat surface. The lower layers would thus project and appear as rings.

The "dragged" mosaic patterns must have originated from the use of glass threads in forming the glass vessel. An accidental disturbance of the threads may at once have shown that by moving them intentionally desirable patterns could be produced. The colors of this period are soft yellow, blue, brown, green, and dull violet. The intense red was not in use. During this period glass-workers imitated onyx, agate, carnelian, and various precious stones and marbles, but did not reproduce the forms of crystals. The beads were usually made in the same manner as the vessels, by winding a thread of glass around a wire, or by pushing a rod through a lump of plastic glass. Stripes of various colors were made by connecting parallel rods, which were diminished by being fused and drawn, and later ground off so as to become flat. Miniature work of this kind has been found in the Palace of Amenhotep at Thebes. At a later period the same effect was produced by grinding off a single, dipped or composite rod.

The end of this period falls in the time of the Ptolemies and may conveniently be considered to coincide with the date of the death of Alexander.

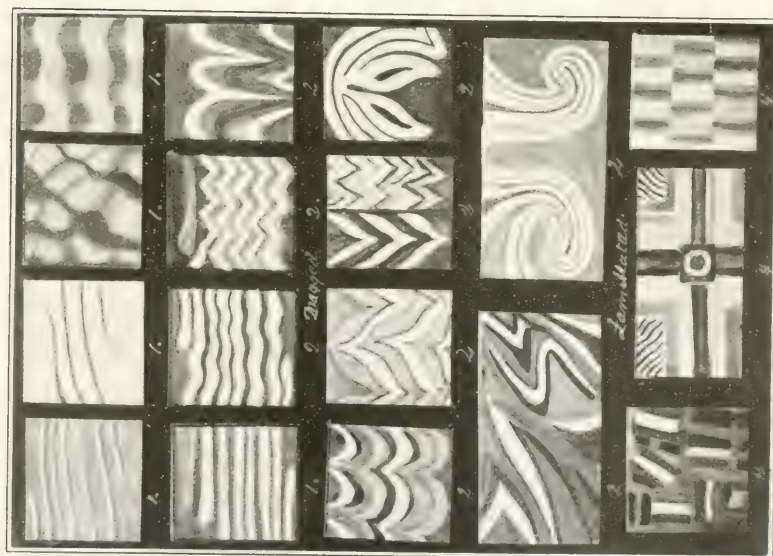
Period of Tube-blown Glass

In the time of the Ptolemies the city of Alexandria became the principal center of glass-making. Encouraged by art-loving monarchs, epoch-making discoveries and improvements were made which brought the art to the highest degree of perfection, if beauty alone is considered. These improvements revolution-



G. A. Eisen, del.

SURFACE MOSAIC GLASS.



G. A. Eisen, del.

ized the art and inaugurated a new period. Tube-blown glass vessels, stratified glass, dipped rods, and moulded glass flasks were invented. The process involved in each of these will require attention to make clear their nature and importance. The earliest attempt to blow glass was made by first producing a tube of glass, closing one end, then enlarging the closed end by blowing into the open end. The stratified glass process consisted in placing layers of differently colored glass one upon the other, and after fusing the layers, cutting off the mass transversely in strips. Of these trips tubes were made, and the tubes blown into small, delicate flasks. The third epoch-making discovery was that spots surrounded by concentric rings could be quickly and cheaply produced by simply coating a rod with different concentric layers. Small disks cut off from this rod possessed about the same appearance as the former stratified eye-spots. An artisan could with the new method produce a thousand such spots where formerly he made but a dozen. Another important discovery was that glass could be moulded and prevented from adhering to the mould by coating the latter with ashes, brickdust, or some such powder.

Besides these improvements, a new kind of glass—the *gold glass*—was invented. This glass was made by inclosing layers of gold-leaf between layers of transparent glass. The layers were then fused and thus permanently preserved. This technique was but an off-shoot of the stratified glass, and we possess many flasks made of stratified glass in which one or more of the layers consists of gold glass. Such glasses began to appear in the third century and lasted to the first century B. C. The gold glass itself continued in use a thousand years longer, and was employed especially for the making of beads. This kind of glass will be discussed in more detail later on.

This whole period may be said to have lasted from the Ptolemies to the time of Pompey the Great, when columnar mosaic rod glass inaugurated a new era.

To this period, and in all probability to the stratified glass types, belong the flasks which Nero, in the

middle of the first century, bought for an enormous price, and which he exhibited together with fragments of murrina vessels in the Theater of Pompey. The vessels which Nero bought are described as "winged." The most likely explanation of this expression is that these "wings" were exceptionally thin, high fins, such as are sometimes found on flasks of stratified glass. They were not added after the bowl had been blown but were made at the same time, the mould being furnished with deep cavities into which the glass matrix penetrated. This seems certain because the stratification ascends from the body into the wings. Such glass was a lost art in Nero's time, hence the great price which he chose to pay. Several such flasks of moderate dimensions are to be found in New York collections.

Period of Columnar Mosaic Rod Glass

The difficulty of producing "variegated" glass flasks by means of stratification was enormous, and no artisan has since attempted to imitate those flasks—even during the Renaissance, when all older methods of glass-making were successfully improved upon by the Venetians. When and how the first columnar rods were invented is not known, but I assume that the manner in which this was done, was practically as follows: Some one probably noticed that when glass rods of different colors were stacked together in bunches, their assembled ends would show patterns of various colors. Thus, when a white rod, for instance, was surrounded by red rods, red rings were seen around a white core. The next step was to fuse the rods and to draw them out into smaller rods and threads. Glass threads had already been spun in the 18th dynasty, but so far no rods with colored centers or colored rings have been found to be earlier than the Ptolemies. Once the discovery of the fused rods had been made, there was but a short step left to the art of making columnar mosaic glass. Instead of merely placing a single colored rod in a mould and surrounding it with the white rods in the form of a ring, intricate patterns were now produced in this manner. Besides rods of glass, the artist made

use of plates of glass, both kinds often being combined. Thus, for instance, a thick rod of white glass was placed upright in a pottery mould, on a base of soft clay. Radiating from this core were arranged plates of white glass, like the arms or points of a star. The vacant spaces between the core and the plates were now filled in by a packing of rods of a different color, as, for instance, green. By fusing the aggregation enough to make the rods and plates form a solid body but not so much as to make them mix, and by cutting this mass into sections, a beautiful pattern of white stars in a green field was produced. By drawing out the cylinders minor rods and minor patterns resulted and these could be combined into more complicated patterns such as geometrical figures, portraits, plants, flowers, birds, fishes, and symbolic figures. In fact, with sufficient care and skill, any and every kind of pattern that could be painted by the artist's brush could also be produced by rods and plates.

Such a matrix in order to hold together had to be thick and therefore did not lend itself well to the production of flasks or even to open vessels and plates. But at about this time the art of shaping a flask or cup from a *glass bubble* had been discovered, and one of its earliest uses was the application of this new method to the production of mosaic cups from columnar rods. Just as we find that the earliest flasks made of stratified glass were heavy and thick, so we now find that the earliest cups made of columnar rods were much heavier than those made at a later date, when the process of grinding the cups to proper thinness had been perfected. The art of blowing glass from a bubble may have been derived from the technique of tube-blown glass, since the workers must have noticed that the greater the heat applied to the end of the tube, the thinner became the bottom of the flask. Still, it seems probable that the glass itself underwent an improvement and was made more readily fusible, which made it possible to produce flasks of such paper-like thinness as the Sidonian flasks of the first century A. D. We know that at first the glass was thick and difficult to blow, because

all the early mosaic glass cups are thick and heavy. In the process of production sections or fragments of mosaic glass were placed along the sides of a mould or simply on a plate, and then fixed together by means of a bubble of glass. The next step was to press the mass into a mould, and finally to thin the walls by grinding. Many specimens have been found which were left unfinished or which broke because the artist went too far in his eagerness. Many such specimens contain in their interior remains of the thick layer of the original bubble, which often is even thicker than the mosaic layer of the bowl. That this was actually the process employed in making these little cups is also verified by certain references in verse written by the Latin poets, who deplore the fact that the artisans of Egypt often continued to grind their vessels until they broke, spurred on by the hope of increasing their profits by asking a higher price for the thin-walled specimens of their craft.

The period of mosaic glass proper seems to have begun during the reign of the last of the Ptolemies and to have ended with the first Roman emperors. According to Kisa, who has had the best opportunity of studying this feature of antique glass-making, the "heavenly murrina" was not produced after the last of the Flavian emperors. With "murrina" Kisa associates, incorrectly, no doubt, the mosaic glass of this period.

Sidonian glass, which is most representative of this period, is especially worthy of mention because of its peculiar quality. The delicacy of this ware, like that of stratified glass, has never since been equalled. Whether the flasks are small or large, they are unsurpassed in refinement of form, color, and decoration. The last consists of symbols and relief figures drawn with taste and skill. Nero was the first to exhibit fine specimens of glass. In this, as in many other art activities, he was the leader of his time. Pliny, however, sneeringly remarks that Nero exhibited broken pieces of vessels, just as if they had been the remains of the body of the great Alexander! After the time of Nero a steady degeneration in taste continued during fifteen

hundred years, and it was reserved for Kircher, a priest in Rome, to found the first museum in that city. It is greatly to be regretted that the name of that first real museum—the Kircherianum in Rome—has been blotted out and its specimens scattered among various museums.

With the Sidonian glass of the first century ends the really great period of artistic glass. The culminating perfection, attained by the stratified glass of the Ptolemies, by the columnar glass of the Augustan Era, and by the Sidonian flasks, has never since been attained. The broken fragments, over which Nero shed his tears, could never be imitated. The greatness of the art of glass was lost forever! Until that time, glass vessels had been valued on account of their beauty and their technique. From that time on, indeed, up to the present day, glass vessels have been valued according to size, lightness of weight, and bizarre forms and decorations. Even now the beauty of antique glass is appreciated by very few and some of our museum exhibits are arranged according to size and general effect.

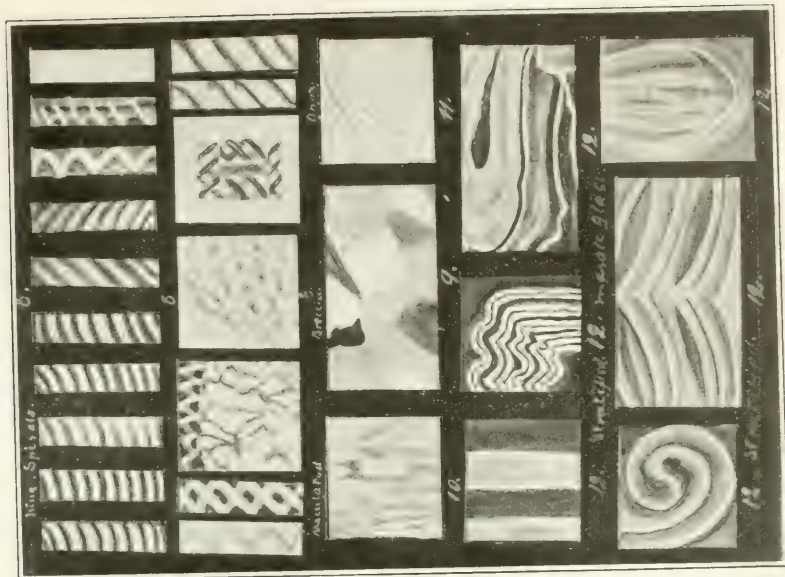
Period of Bubble-blown Glass

This period includes the time from the middle of the first century A. D. to the advent of the Arabs. Until the beginning of this period glass-making had been practiced principally in Egypt and Syria, but about the time of Pliny, who perished with the destruction of Pompeii, glass factories were established also in Italy, Gaul, and Spain. With this extension of the manufacture commenced the degeneration of the artistic and sober character of the craft. If we may judge from the statements made by Nero and Hadrian, in regard to glass, both of these art-loving monarchs preferred the older types to the new. The vessels of the whole period are characterized by an increase in size, undoubtedly due to the perfected technique of glass-blowing. Transparent white glass became common and was preferred to the colored specimens both for decorative and table use. Rare and fine specimens of both new and older types were preserved in the temples, and probably

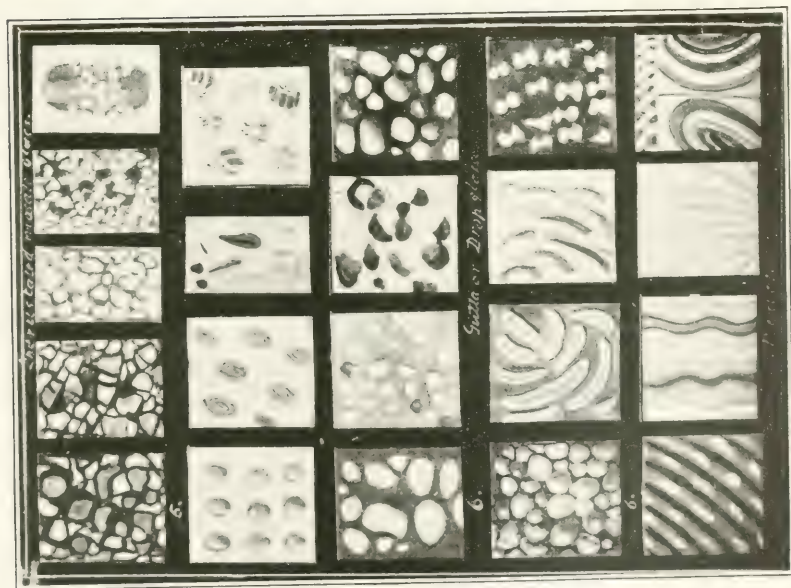
also for purely decorative purposes in households. With the increasing demand for size came extravagant decorations and forms, which continued unabated until, through war and the migration of races, communication was interrupted and the ingredients for glass-making became rare. Mosaic and stratified glass disappeared at the commencement of this period and the perfect technique of the Sidonian glass was all but lost. The best types of the glass of this period were produced in the middle of the second century; the poorest at the end of the classical period.

Kisa, in his generally admirable book on glass, divides the whole period of glass-making into ten minor periods from the time of the Ptolemies. Several of these periods are, however, now untenable, based as they are upon an imperfect dating of the typical specimens and because of the lack of recognition of the tube-blown glass. A thorough discussion of this subject is not possible in a short review, and only the mere outline of a practical subdivision according to centuries is possible. Even such divisions are, of course, not well defined, since changes in types and processes came gradually in glass-making as well as in other arts. The common characteristics of the six centuries during which the classical glass-making continued may be summarized as follows: Transparent white glass predominated over colored glass, and extravagant types over sober forms. Mosaic and stratified glass were not used in vessels, but only for beads. Technically, the types were: moulded, blown in a mould, blown from a bubble, and pressed. Reliefs and protuberances were produced in a mould, and decorations by stamps. The surface decorations consisted of glass threads, bands, rods, and drops. At first the vessels were small, but later they became larger, undoubtedly on account of a developed technique. White glass seems to have been preferred for household use. We shall now consider the minor divisions according to centuries.

First century, A. D. The forms were characterized by wide bowls, low stands, and narrow foot-disks, like



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G. A. Eisen, del.
SURFACE, IMBEDDED, AND MATRIX MOSAIC GLASS.

those of the Boscoreale silver treasure and the contemporaneous Arretine (Cf. Pl. IX, fig. 12), Samian, and green-glazed pottery which undoubtedly inspired the makers. The handles, if upright, were broad and thin; if horizontal, they extended in the plane of the bowl and were even with the top. The decoration consisted of "guttae" or drops, horizontal threads, rosettes, beads, and depressed lotus petals along the base or on the lip. Sidonian glass kept its perfection to the end of the century. Beakers with cut ornaments or with drop bosses have been found in Pompeii. Diatreta vessels (See below) and cut glass began to appear and were produced with perfect technique. That some of the finest specimens of this technique known belong to the first century can be proved by the form of the vessels. The study of this period must be based primarily upon objects found in Pompeii and other cities buried in the first century. Many objects, such as beakers and flasks decorated with vines and animals and formerly ascribed to the second or even third centuries, belong to the time of Pompeii.

Second century A. D. With the reign of Hadrian a reversion to Greek forms is noticeable. Hadrian travelled continually during many years and procured and sent to Rome everything that pleased his fancy. His travels in Greece caused a revival in the taste for Greek art, and consequently Greek forms were given to glass objects. The only mosaic known to have been applied to vessels consisted of surface "guttae" or drops (Pl. XI, 6) and was generally associated with Greek forms. The new decorations, both on vessels and beads, consisted in twisted or wavy threads and rods, applied around the lip, along the handles, or down the sides of the vessels. Serpent threads were used in profusion, often in combinations far from pleasing. Reliefs were produced by means of moulds. The Church Father, Tertullian, severely criticises the use of the figure of the Good Shepherd on Christian chalices.

Third century, A. D. The use of serpent figures continued, but they were now more sober and less

complicated. Diatreta vessels of glass or of glass and silver were highly prized, but executed with a less perfect technique. The flat cups and bowls without handles which, in the first century, were wide and shallow, were now made narrower and deeper. Cut glass and cut decorations were common. Cylindrical vessels were the most fashionable, but spherical and funnel-shaped forms were also common. The necks of the flasks were either cylindrical or funnel-shaped; bell-shaped bowls were in favor. Large, multiple and elbow handles which projected far from the body of the vessels show the extravagance in taste. The decoration consisted of spirally wound and horizontally applied threads and rods of glass. Beads were decorated with "overlaid technique," the vessels were covered with "fins" and drops. Accessory handles between neck and girdle were among the curiosities of the period. The colors of the handles and threads were often different from that of the body of the vessel, which was generally a blue-green. Many flasks were decorated by depressed cavities, lines, and circles. This period is considered by many the most perfect, but, as some of the specimens upon which such a theory has been based belong to the first and second centuries, the preference must be given to these.

Fourth century, A. D. The Christian or Constantinian period. Several distinct types of vessels were produced during this century, the most characteristic being the Syrian and Jewish glass, which are characterized by being many-sided, each side furnished with a figure decoration in relief or in depressed patterns. The prevailing decoration consisted of the "wave," which is a zigzagged thread or rod, applied either on the girdle of the vessel or on the beads; but the most characteristic use of this ornament was to stretch it from the neck of the vessel to the girdle of the bowl or to its shoulder, thus leaving a hollow space underneath around the neck. Serpent threads and waves are often combined. Most of the known glass from this century comes from Syrian tombs and was undoubtedly made in that country for the use of the pilgrims to the holy places. Amulets, religious tokens, symbols, emblems

of Jewish as well as Christian nature constitute the characteristic features of this glass. Among general types we have goblets with heavy low foot-disks and tumblers without stands. These are often made with concave sides.

Fifth and Sixth centuries, A. D. Our principal knowledge of these centuries is derived from the Castel Trosino and Nocera Umbra collections in the National Museum in Rome. They show us that the types were few and simple, practical and well-balanced on wide foot-disks. The most conspicuous decorations consist of "dragged" patterns in red and white on yellowish and blue matrix as a background. Kisa considers the finest specimens to have been heirlooms from the fourth century, but such a theory is unwarranted, because the fifth and sixth century beads are characterized by such "dragged" patterns in the same colors, and it is entirely proper to assume that the vessels thus decorated were made at the time of the beads. There were many new colors in this period, such as deep orange, lemon-yellow, brick-red, opaque emerald, and olive-green, used in combinations giving a distinct character to the wares. Without a knowledge of the glass of these two centuries the glass of the Arabic period could neither be separated nor explained.

Arabic Period

When the Arabs conquered Egypt in the seventh century their first work seems to have been the robbing of tombs and the search for treasure. In these tombs they found innumerable treasures of gold, silver, and glass. The metallic objects soon reached the smelting pot, but the glass objects served in time as models for glass of their own making. It is thus possible to divide the Arabic period into two epochs. The first includes the time when antique glass was imitated. In the later epoch the Arabs were able to invent forms and decorations themselves. They at first made alabastrons in the style of the ancient Egyptians, imitating the old ones so perfectly as to make them distinguish-

able only by their colors. The earliest Arabic glass seems to have been tube-blown, just like the Ptolomaic glass, the decoration consisting of "dragged" patterns like those on the old Egyptian flasks. All other types made at that time are heavy, with thick walls, small in size and poorly executed, and on this account most of these flasks have been identified by students as early Roman or Greek wares. The favorite decoration of the first epoch represented snakes, hides, and shields, objects which the Arabs valued, but which the Egyptians and Romans had scorned as unsuitable for decoration.

With the twelfth and thirteenth centuries the Arabic glass became refined and elegant in form, and the older decorations gave place to figures of animals, elegant vines, trees, flowers, and the like. From this period we possess some of the most beautiful specimens of glass ever made, decorated in enamels of blue, green, and gold. To this period belong the fifteenth century so-called Alhambra Vases, somewhat Greek in form, but with upright, flat and broad handles, never found in any other types. Besides the large vases of this kind, we possess numerous small flasks of the same general form decorated with "dragged" patterns, like the old Egyptian vases, but containing much brick-red and white. The matrix is often dull blue-black, peculiarly displeasing to an eye accustomed to the refined Egyptian work of corresponding type. Nearly all this ware has been incorrectly classified as Roman. Yet, strange to say, the Arabs to this day produce objects of glass which are carried home by tourists and which may be found in our museums variously labeled Egyptian, Etruscan, Greek, and Roman.

Of course, not all the glass in this period was made by the Arabs. Much was made by the Christians, and even the Jewish glass seems to have continued in favour. Much of the gray oxidized glass hitherto ascribed to the fourth century, probably belongs to this period.

Venetian Glass-workers

During, and partly as a result of, the Arabic conquest, the centre of the glass-making was transferred from Egypt to Venice. The Venetians soon began to fill the wants which the Arabs were incapable of supplying, and it is presumed that they had achieved a reputation long before the time of Marco Polo. The date of the earliest Venetian glass is not determined. Some have suggested the sixth or seventh centuries, but it seems improbable that this glass was made to any considerable extent before the tenth century. In the end of the thirteenth century the great traveller, Marco Polo, returned to Venice after an absence of many years. He had discerned the taste of the Orientals and suggested to his countrymen that they apply themselves to the making of beads, which could serve as a ready material for exchange.

The suggestion must have been adopted at once; some twenty years later we find the Venetians supplying the Orient with their glassware. But the real magnitude of Venetian glass industry culminated only after the discovery of America by Columbus, when it became apparent that the Natives of the New World were as readily brought to terms by a handful of glass beads as had been the Orientals before them. In late years much of the bead trade has been acquired by the Germans on account of the cheapness of their ware, and by the Bohemians because of their perfect imitation of onyx and other stones.

In the fourteenth and fifteenth centuries the Venetians became greater experts in glass-making than the Egyptians and Romans had been. These artisans produced during their best period glorious specimens, remarkable for lightness and transparency, but displeasing on account of their often very fantastic shapes, which lacked seriousness, force, stability, and pose. The Venetians acquired their technique partly through inheritance, partly through the discovery of new or improved methods. It was by these means that they obtained a reputation as great artists. But they never

succeeded in producing anything so beautiful or so perfect as antique stratified glass, antique mosaic glass, Sidonian first century flasks, or the finer specimens of "diatrete" vessels. Their finest and most perfect work is their ribbon and thread glass made of rods containing twisted bands and threads of a distinct color and pattern. None of their work, nor that of the Bohemians, possesses the charm of the antique glass, which yet remains unrivalled. It has generally been presumed that the Venetians rediscovered the way of producing columnar mosaic or millefiore glass. This, although asserted by Minutoli and by almost every successive writer, is certainly an error, because the columnar mosaic glass technique has never been lost. We possess specimens datable to every century from the time of Augustus to the present day.

Summary of Inventions Relating to Glaze and Glass

Period of Glaze

Glaze for coating objects of stone and paste.

Period of Core-spun Glass

Invention of glass about 1500 B. C.

The core-spun technique.

Dragged threads and bands, producing dragged patterns.

Stripes by means of parallel rods.

Eye-spots and rings by layers of drops.

White transparent glass.

Onyx, carnelian, and marbled glasses.

Creasing the surface by dragging and moulding.

Period of Tube-blown Glass

Stratified glass.

Gold glass.

The dipped rod.

Eye-spots made of sections of dipped rods.

Tube-blown glass.

Blowing out a tube in a mould.

Period of Columnar Mosaic Rod Glass.

The composite columnar rod.

Columnar mosaic glass by means of rods and a mould.

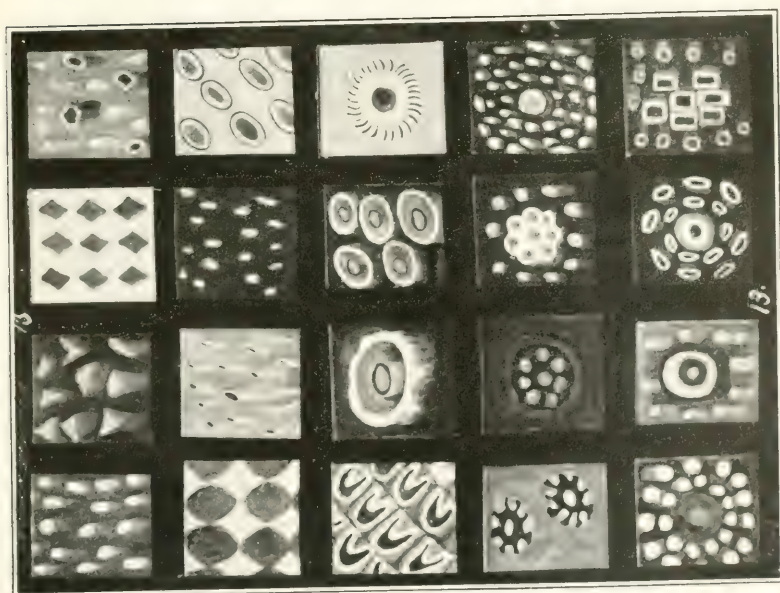
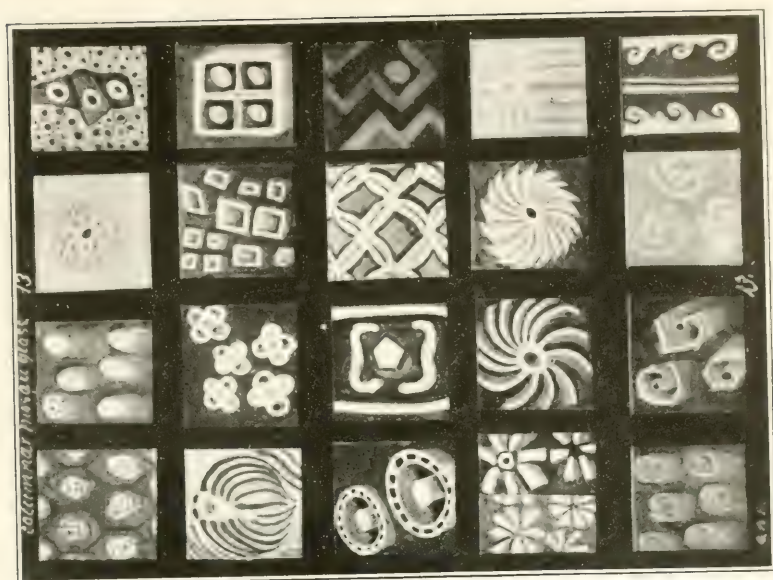
Diminishing the patterns as well as the rods by drawing.

First bubble-blown glass.

Vessels blown in a mould. Sidonian glass.

Moulding crystal forms.

Period of Bubble-blown Glass



COLEMAN MOSAIC GLASS.

- Large vessels made by bubble-blowing.
- Moulded and cut glass in imitation of crystals.
- Cut, ground, diatrete and opus interrasile glass.
- Pressed ornaments.
- Predominance of white transparent glass.
- Beginning, and steady continuance of degeneration of form, quality, and color. Introduction of new and bright colors.
- A continued tendency to practical and stable forms.

Arabic Period

- Imitations of antique forms.
- Imitations of antique techniques.
- Imitations of Byzantine types and technique.
- Original types.
- Introduction of new colors.
- The general use of enamels for decoration.

The Venetians

- Continuation of the antique technique, except stratified glass.
- Perfecting all types of technique.
- Star-bead glass.
- Extravagant forms.
- Disappearance of harmonious coloring.

CHARACTERIZATIONS AND DEFINITIONS

Glaze is the outer glossy layer on pottery. It is derived from a mixture of earths and other ingredients and is generally applied when cold and fluid, but hardens with heat. When oxidized it may become iridescent. It often possesses a lustre due to the use of metallic salts in its composition.

Paste, terracotta, china, pottery, majolica, porcelain, etc., are mixtures of earths and minerals ground finely and mixed with water to make them plastic. They are formed into vessels, beads, and other objects when cold and moist and in this respect differ from glass. Some pastes are also known as "slips."

Glass consists of earths and alkalies, as well as metallic oxides, which are fused and made plastic by heat. The plasticity of glass commences at about 400 C. and at about 500 C. it becomes liquid. Some kinds of opaque glasses are incorrectly termed "pastes," or "glass-pastes," such as the Sidonian "ivory glass," which is a real glass and not a paste. Before the 18th dynasty, all Egyptian beads and similar objects were made of paste, but with that dynasty, they were also made of true glass.

The *iridescence* is either intentional or due to accident. The intentional iridescence is extremely rare in antiquities. It consists of a very thin film of transparent glass laid over an opaque, black surface. The accidental iridescence is due to oxidation and deterioration, caused by burial in moist earth. Through the influence of the moisture and the air, the glass, as well as the glaze, has separated into layers which refract the light-rays in such a manner as to produce interference of colors, like those on the rainbow.

Lustre is not produced by oxidation but by intentionally added metallic salts. The technique of lustre was unknown in antiquity.

Oxidation of glass and glaze is of importance because different kinds of matrices produced distinct types of oxidation and iridescence. A study of this defoliation of the matrix often makes it possible to determine the nature of the objects, when and where made, where and how buried, and so forth. Some kinds of glass, when oxidized, produced iridescence under certain circumstances. A dry burial of glass produced dull oxidation or none at all. It never produced iridescence, except in cases of fire, as, for instance, when buildings were destroyed. The gray and dull oxidation of Arabic glass of the early period permits us to determine that much glass of this color, hitherto considered as early Christian, really belongs to the Arabic period. Pure white, transparent glass oxidized more readily than opaque glass. In order to preserve the oxidation which is often considered the most important artistic and commercial property of antique glass and glazed objects, the specimens should never be wiped with a moist cloth, but preferably with a brush like that used by photographers for their negatives.

Preserving the Glass and Enhancing its Colors. Glass with undesirable oxidation may be restored to much of its original beauty by brushing the surface with a cold solution of beeswax (not paraffin) in petroleum, turpentine, or any similar solvent which will readily evaporate. The wax soon hardens and preserves the glass from the influence of air. However, delicate and beautiful iridescent glass should not be treated in any manner nor should it be touched by anything but the very softest brush, as above described. Some varieties of glass have oxidized more characteristically than others, and one may often judge of the original color even when that color is lost.

Plain Glass. The matrix is uniform throughout, opaque, translucent, transparent, white or uncolored. The earliest glass, of the 18th dynasty, was milky and soft on account of numerous bubbles. These were gradually eliminated and in the 9th century pure white glass as brilliant as crystal begins to be common. The opaque glass is often referred to as "paste." This term is more properly applied to compositions of clay and earths which were moulded cold and softened with water. Glass was always moulded while hot and could only be softened by heat. The great heat required makes it improbable that the art of producing glass was discovered by Phoenician sailors as the result of an open fire made on the sandy beach at the mouth of a river.

Surface Threads and Bands. Any matrix, plain or complicated, could be decorated with threads, rods, and bands of glass when plastic. In the earliest types such decorations were not rolled into the surface of the glass, but were left more or less elevated. When they are deeply rolled into the matrix, the result is properly termed mosaic glass. The manner in which the threads were applied is often characteristic of a certain period, and all peculiarities of such threads should be noted.

Mosaic Glass. In mosaic glass variously colored units enter for decorative effect. Such units may consist of threads, bands, rods, drops,

and fragments of glass—or even foreign substances, such as metals, sand, etc. Sometimes these elements are imbedded near the surface, but at other times they constitute an integral part of the matrix.

Core-spun Glass. This is the earliest type of glass, invented in the 18th dynasty, but continued long after the conquest of Egypt by the Romans. The first part of the process consisted in shaping a core of clay and winding threads of variously colored glass around it. The threads were then fused by heat and rolled together. (The decoration was made up almost exclusively of "dragged" threads.) The last step in the process was to scrape out the core, which was always softer than the glass.

Tube-blown Glass. In making vessels by blowing a tube or cylinder of sheet-glass was rolled up and closed at one end; then by blowing through a pipe of metal or glass in the open end, the more distant part of the tube was enlarged. The process was invented in the third century, B. C.

Pressed in a Mould. The thick sheet of glass was pressed into a mould while plastic. Only shallow cups and flat objects were made in this way. The method was apparently invented in early Ptolemaic times.

Blown in a Mould. This process succeeded the tube-blown glass but preceded the bubble-blown glass. It consisted in blowing a bubble of glass against fragments of mosaic or other units set along the walls of a mould. It was common in the first century B. C. But the most perfect bubble-moulded glass is the Sidonian ware of the first century A. D. It is fine in quality, fine in decoration, and in every way perfect.

Bubble-blown Glass. The process was invented in the middle of the first century B. C. At first the method was crude but it attained perfection in the middle of the first century A. D., particularly in Sidon.

Stratified Glass. Sheets of glass of different colors were superposed in regular layers, fused together by heat, and when cold cut in thin strips. Of these strips tubes were made in different ways, by folding, by twisting, or winding around a core. Vessels were made of these tubes as already described. The pattern of decoration was formed by the edges of the layers. This glass was invented in the time of the Ptolemies.

Rod Glass. Rods of glass were placed side by side along the walls of a mould and fused. The invention is Egyptian in origin but was made in early Roman imperial times.

Cameo Glass. This is a kind of stratified glass but its employment was quite distinct. The glass, imitating carnelian and other hard stones, as well as the cameo-shell, consisted of two superposed layers, the upper one of which was carved into figures, the parts between the figures being scraped away in order to show the lower layer as a background.

Vasa Diatreta and Opus Interrasile. These vessels were made of two kinds of glass, just as was the glass cameo, but the outer layer has the form of a perforated decoration *à jour*; it is also known as openwork. The finest specimens date from the first century A. D. The technique of the type is disputed, but I imagine that the process

was as follows. The outer, open and perforated layer, was made in a deeply carved mould. Against this openwork was blown a bubble of different glass. When removed from the mould, and when cold, the outer layer was scraped, ground, cut, and polished, short pieces of glass being left to connect the two layers. It is one of the most beautiful of the antique techniques.

Enameled Glass. This was known to the Romans, who used it not only for decoration but for making larger objects, such as busts. A bust of Caracalla (?) in the Conservatori in Rome, is said to have been made by superposing enamels. The enameled process was extensively used and preferred by the Byzantines and after them by the Arabs.

Turned Glass. Many vessels, especially those of rather flat form, show that they have been turned on a kind of potter's wheel. The process was employed in diminishing the thickness of certain millefiore and Sidonian so-called ivory-glass vessels. These, as has been mentioned, were produced by blowing or pressing a thick bubble of glass against rods and plate units in a mould. This bubble as well as the superfluous thickness of the rod glass was afterwards ground off. Many such vessels show the rings caused by turning. I do not think any glass vessels were formed entirely by turning; the same effect could have been produced by first moulding the vessels and then finishing them by turning.

Handles. The technique and form as well as relative size of the handles are of great importance, because they varied with the period. Thus, in the earliest Egyptian alabastrons the handle consisted merely of a knob. In Greek times the knob was changed to a tiny handle. At a later period the handle was made larger. The quality of the surface of the handles is of importance in dating, because the handles with a smooth surface are much earlier than those strongly striated. The handles of the late Arabic alabastrons (seventh and eighth centuries A. D.) were striated or even ribbed. The handles in the time of Augustus were made wide and thin, like strips of paper. In the third and fourth centuries A. D. the handles were often zigzagged, like the teeth of a cog-wheel.

Lip. This varies considerably in type, from narrow to broad, from flat to funnel-shaped, from even in outline to pinched and trifoliate, from horizontal to upright or sloping downwards.

Surface. On the flasks as well as on the beads the surface was either naturally smooth or was made smooth by grinding. It was sometimes ground or "cut" into forms of decoration, and it was fluted or ribbed, either by creasing or by adding ribs, waves, shields, spiral threads, drops, bosses, etc.

TECHNICAL PROCESSES CONNECTED WITH BEAD-MAKING

Beads which look alike to the unpracticed eye differ materially in method of manufacture. Since the processes varied and were improved from time to time, and new and more practical inventions made, a knowledge of them becomes a necessity in classifying the objects. The technical processes concern the formation of the bead, the for-

mation of the bore, the decoration of the bead, and its finishing. By studying this subject with attention to details, it is nearly always possible to determine the date of the bead, and in some instances its provenance. A few illustrations make these facts comprehensible, as, for example, the capped beads of the 18th dynasty and the capped beads of the 2d century, A. D., which differ essentially in the manner in which they were made. The former consist of a solid unit of glass, the latter of a flat piece of rolled glass, thus producing a suture which is always recognizable.

The spherical and other beads of the time of Amenhotep which were decorated with a spiral thread, may be recognized by the manner in which this thread was commenced and by the way it was applied to the surface. Some beads, before the time of Augustus, were made, preferably, by laying a glass thread over a wire. Such beads show a short nib or projection at each end. In some beads the bore is wider at one end than at the other, the rod used having been wider at one end. The creases in melon-shaped beads were either made by hand or by rolling over a grate. By the latter method the creases often overlap at the commencement and at the end. In producing the wave, the thread was either run along in a wavy fashion without a break, or halted at the points to form a small loop or a thick dot.

Some eye-spots were made of superposed drops of glass, others were made by separate rings of glass, others again from slices of a rod with inner concentric layers.

How very little attention has been paid to these details even by those who have written upon the subject is shown by the fact that glass vessels and glass beads are often dismissed with the single word "variegated," which conveys no other meaning than that the objects were parti-colored. It is perfectly evident that no scientific value can be attached to such descriptions, which is all the more regrettable, since many of these specimens are now either lost or inaccessible.

Technique of the Matrix

Spiral Rod. A thread, band, or rod was spirally wound over a metal stylus, wire, or rod. The beads produced in this way show the ends of the thread projecting at each bore.

Perforated Unit. A small lump of glass was taken up and formed against a marble plate and finally a rod was passed through to form the bore.

Cut-off Cylinder. A perforated cylinder was first produced, then cut in slices either while soft or when hard. The ends were rounded or left square and flat.

Punched Out. The bead was punched out from a flat sheet of glass while it was soft.

Rolled-up Sheet. A small sheet of glass was rolled up longitudinally, the junction of the two edges showing as a suture.

Bent and Twisted Strip. A strip of glass, generally cut from a sheet already ornamented, was bent, or bent and twisted. In the former case but one suture was made; in the latter a suture for each bend and edge.

Parallel Rods. Four rods of glass of equal size were placed side by side longitudinally in a square, so that the sides joined. After fusing, the rods were cut in lengths and ground off to form cylinders and spheres. The inner rings of the dipped rods then showed on the surface as decorative lines.

Fused Rods. A solid rod was cut in lengths and formed into cylindrical or rounded beads. The bore was made transversely to the rod in order to show the core of the rod at the opposite ends intact.

Moulded. The bead was cast in a mould. The joints of the mould show.

The Bore and the Cavity

The bore in a glass vessel or in a glass bead offers characteristics which help to date the object. The following ones are the most important.

Scraping out the Core. The core in the core-wound flasks made of clay, was scraped away when the flask was ready.

Bore made by Punching. This was used in Egyptian disk-beads of paste and glass. A rod was used in forming the bore of the glass beads or of the hollow flasks by forcing it through a lump of soft glass. Such bores are often wider at one end than at the other, as presumably the rod was thicker at the base.

Laying over a Wire. The bore was formed by rolling or laying a glass thread over a wire or rod. Such beads or vessels show a spiral twist. Thus were formed many beads from the Egyptian New Empire to the time of the Ptolemies. The bore of many stratified glass flasks was also made in the same manner, which can be readily recognized by observing the spiral course of the thread or strip.

By a cylinder. The core of beads and of flasks was also made by first constructing a cylinder. If the opening was desired wider than the bore of the cylinder, it was enlarged by blowing out the cylinder, after one end had been closed. If it was desired narrower, the cylinder was drawn. The bore diminished with the cylinder without closing up.

By Folding. A piece of sheet glass was rolled or folded so that the ends met. All such bores or tubes show a trace of the suture where the edges meet. In beads such sutures were generally widened in time by the thread on which the bead was strung. This fact constitutes a ready means of separating the capped beads of the 18th dynasty from those of the 2d century A. D.

By Blowing a Bubble. The bubble-blown glass seems to have been invented in the first century B. C. but many of the vessels hitherto believed to have been produced that way, can be shown to have been tube-blown—for instance, all vessels made of stratified glass, all long narrow vessels with heavy walls, nearly all flasks termed by dealers "candlesticks," and many other specimens of the first century B. C., as well as of the early Arabic period.

By Drilling. The cavities and bores made in hard stone were produced by drilling with a metal instrument and corundum and emery powder. The antique drill bores are characterized by having been

drilled from two opposite sides, the two bores rarely meeting exactly. Many glass objects are also drilled in the same manner.

Technique of the Decoration

Wave. The wave consists of a zigzag thread carried along a surface. It was made either by running the thread up and down and forward without a break, or else the artist halted the thread at the top of the crests and at the base of the hollows, twisting the thread backward at the same time, thus forming a loop or a thickened dot. The former process produced round waves; the latter, pointed waves. The waves could also be produced by "dragging" in one or two directions. Another way to produce the wave was to use flat plates of glass in the manner of columnar mosaic glass, like the star-bead glass, or by rolling the surface over a grating, and then dipping the object in fused glass of a different color.

Granulation. The spots and granules of the surface were made with fragments of glass, with cut-off mosaic disks, or with drops.

Creasing by hand. Beads with parallel creases, like melon beads, show elevated ribs from pole to pole. The creases were made by pressing the bead with the edge of a tool.

Creasing by rolling. The soft and rounded bead was rolled over a creased surface with parallel ridges. These creases did not reach the poles of the bead, and often overlapped along the ridges.

Creasing by drawing or raking. Creases separated by wide ridges were made by drawing the surface with a hard sharp point of metal. This method was generally used in producing dragged patterns.

Creasing in a mould. The creases were produced in a creased mould. The two or more joints of the mould show.

Creasing cylinders. The whole cylinder was first creased and then cut in slices. Such beads show the creases up to the flat bore-ends, sometimes, even if the ends have been rounded off.

Pitting. Impressions were made in the bead by a hard point of metal. Creased ridges were sometimes pitted.

Knobs. Knobs of glass were often added to the surface, especially in the fifth and fourth centuries B. C. After an intermission the fashion was revived in the 5th to 8th centuries A. D.

Eye-spots. The technique of the eye-spots is of the greatest importance in the study of antique glass, as it assists in dating such glass with accuracy. The following methods were in use.

Impressed Rings. A small ring of glass was pressed into the surface of the glass. The Venetians sometimes used twisted threads of glass in the rings. Drops of glass were rolled into the surface of a vessel or bead and on the disk thus procured a smaller drop was placed and rolled in. The first drop then appeared as a ring, the second drop as a central disk.

Cut-off Rod. The eye was produced by cutting sections of a rod made of concentric layers. The latter formed the rings.

The impressed rings date from the first efforts of the Phoenicians to make glass objects. The stratified eyes date from the 19th dynasty, before which time the eye-spots were simple and made from a drop of

glass rolled into the surface. The cut-off rods came into use during Ptolemaic times.

These methods not only permit us to date a bead or a glass vessel, but often enable us to detect intrusions.

INTRUSIONS

Intrusions are objects which appear in connection with objects of a different date, either in the tomb, in the excavation, or in the collection: as, for instance, modern beads in an antique necklace. Such intrusions are common, and so far I have never discovered a single collection of antique glass—vessels or beads—which did not possess one or many such intrusions. The intrusions are of two kinds, old and recent.

Old Intrusions. These consist of older objects intruded among modern ones. For example, in old tombs or excavations we discover objects more ancient than the tomb. These objects were either heirlooms or derived from old tomb-robberies. They were the property of the deceased or his friends. Several necklaces of glass beads in the Castel Trosino and Nocera Umbra collections in the National Museum of Rome, contain one or more older beads. Some of these belong to the fifth century B. C.; others are from the time of Augustus. Some, again, date from but one or two hundred years before the tomb. However, the glass vessels found in these tombs, which Kisa considers as heirlooms of the fourth century, are of the same date as the tombs which belong to the sixth century A. D.

Recent Intrusions. These consist of objects of later date, generally modern specimens, which have been, purposely, by accident, or by ignorance, coupled with the more ancient objects. I have noted numerous such intrusions. For instance, a necklace of Modern Arabic beads in the Vatican Museum is labeled "Pharaonic, 18th dynasty." A vase of Venetian star-bead glass in the same Museum is labeled "Roman mosaic glass." A necklace of modern Venetian beads is shown in a collection of objects labeled, "First iron age," in the Museum of Berne. A Venetian necklace of oblong beads with "dragged" decoration, is exhibited in the University of Perugia Museum as "found in a Greek vase of the third century B. C." A modern Venetian necklace is exhibited in the Antiquarium of Munich in a case with Egyptian dynastic beads, and in the same collection a necklace of modern Sudanese beads is said to have come from a dynastic tomb. In the Etruscan Museum of Rome, in Villa Giulia, two central beads in a fifth century B. C. necklace are modern, one possessing an eye made of a twisted thread ring. In looking up the record of the necklace, Dr. Giglioli found that, contrary to supposition, the necklace had been purchased and not excavated. Finally, I must call attention to the fact that star-beads, all of which are Venetian, are common in necklaces that come to us from Egypt, Syria, and even Italy. The star-beads seem to have been the most appreciated type of beads of the Venetian factories of the fourteenth and fifteenth centuries. Such beads come principally from Arabic tombs.

SPECIAL REFERENCES

Gold Glass and Gold Glass Cups

Gold glass contains a thin gold leaf between two layers of transparent white glass. The effect produced by such glass is superior to that of solid gold. The glass sparkles, but is at the same time soft, and does not refract the rays of light in the same glaring manner as does a surface of gold. This is especially apparent in gold glass beads, the edges of which are soft and subdued, while the edges of pure gold beads are sharply defined and harsh. The glass was probably prepared in two different ways, according to the use for which it was intended. If intended for vessels, the gold leaf was spread over a flat surface of glass and made to adhere to it by some thin adhesive matter like gum, albumen, honey, etc. When dry, another thin sheet of transparent glass was placed on top and the two sheets fused together. If intended for beads, the process was necessarily different and was probably as follows: A thin tube of glass was covered with gold leaf. It was then inserted into a slightly larger tube of glass, and the two tubes were then fused. Instead of gold, silver and other metal-leaf were used, and silver glass is even more common than gold glass. Such glass did not lend itself well to being drawn, or extended by blowing, as the gold leaf, which would not stretch at the same rate as the glass, would crack in every direction. Such cracks are actually seen in all specimens of gold glass vessels, but are less apparent in beads, which required to be only slightly extended and modified in form and size. A defective quality of this glass is shown by the fact that it was apt to separate into its component parts. Beads, especially, suffered in this manner, and many specimens show large chips at the ends, exposing the middle layer of gold. To prevent this tendency a small cap of plain glass was generally placed at each end of the bead. This cap closed the opening between the two glass layers and held them together. Gold glass seems to have been invented in the time of the Ptolemies, the earliest specimens dating from the third century B. C. It continued in use during the empire, but its quality degenerated from the time of Augustus, and the mediaeval objects which have been preserved give no idea of the beauty of the older ones. It was used both for vessels and for beads. The most glaring defect in the late empire glass was that the layers separated from the gold and heavy and unsightly caps had to be placed on the beads in order to prevent them from falling into fragments.

The fame of the gold glass is due partly to its use in mosaic glass from the third century B. C. to the second century A. D.

Greater interest is now attached to the cups made of this glass which have been found in the catacombs. The interest is due to the gold glass graffiti in the bottoms of the cups. These figures were produced by scratching the gold leaf with a needle, thus forming non-metallic lines in the gold surface. Some of the scenes are pagan, but the majority are decidedly Christian, representing Christ, apostles, and saints. Some scenes are, however, strictly Jewish, showing the

ark, the seven-branched candlestick, palms, Jewish vessels and other objects from the Temple. One of the most interesting depicts a Greek temple, in the tympanum of which is a seven-armed candlestick. An inscription confirms the supposition that this was intended to represent the Great Temple of Herod, which possessed a Greek form. But it cannot be assumed that this illustration was based upon anything except tradition, and it adds but little, if any, to our knowledge of the appearance of the Temple, although it confirms the idea that the central structure was Greek in style. Generally, only the bottoms of the cups remain, as they are the only parts which contained graffiti. Most of them were found in the cement which sealed the "loculi" or tombs of the Christians, and theories have been advanced to explain why they were placed there and why they were always broken. I venture to suggest that the scenes of Christ and saints were regarded as protective amulets to the defunct, and that the cups were placed in the cement in such a manner as to be readily seen from the passages in the catacombs. They indicated to the living that the deceased was a Christian, and served as a warning to the evil spirits and influences, which were supposed to haunt these dark places, that the dead should not be disturbed because he rested in Christ. The saints represented were probably the patron saints of the deceased, and it has been observed that when two saints were depicted in the same cup, these two saints had their celebrations on adjoining days. There are no good reasons for assuming that these cups were used as communion chalices, nor that they served as identification marks by which relatives could recognize the graves of the members of their family or those of friends.

Sacred Vessels Reproduced in Glass

Already in the first century it seems that sacred vessels were reproduced in glass, generally in diminished size. In the fourth century such vessels became common. Such sacred vessels were doubtless limited to very few types. So far, I have identified the following: the cup of the Last Supper; the vessel in which Joseph of Arimathaea collected the blood of Christ; the flasks in which Joseph of Arimathaea preserved the blood, and which he carried with him; the wine jars of the Wedding Feast at Cana; storage flasks and wine casks for the Eucharistic wine; and mystic chalices with the wine, vine, and the loaves.

The glass amulets used by the Christians of the fourth century A. D. were numerous. These were sometimes of the same form as some sacred object, sometimes that sacred object was engraved, stamped, or otherwise added on some indifferent object. Besides Christian Jewish and pagan symbols were common.

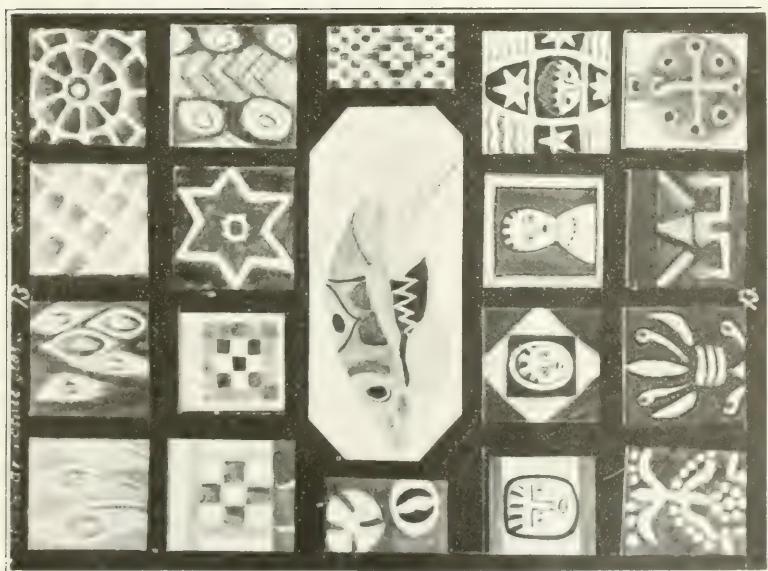
The Units of Columnar Mosaic Glass

The primary units consist of *rods* and *plates*. These rods and plates may be used singly or in combination, and by such combinations a great, or perhaps an infinite, variety of patterns may be produced.



17

NEW YORK, METROPOLITAN MUSEUM OF ART, GOLD COIN

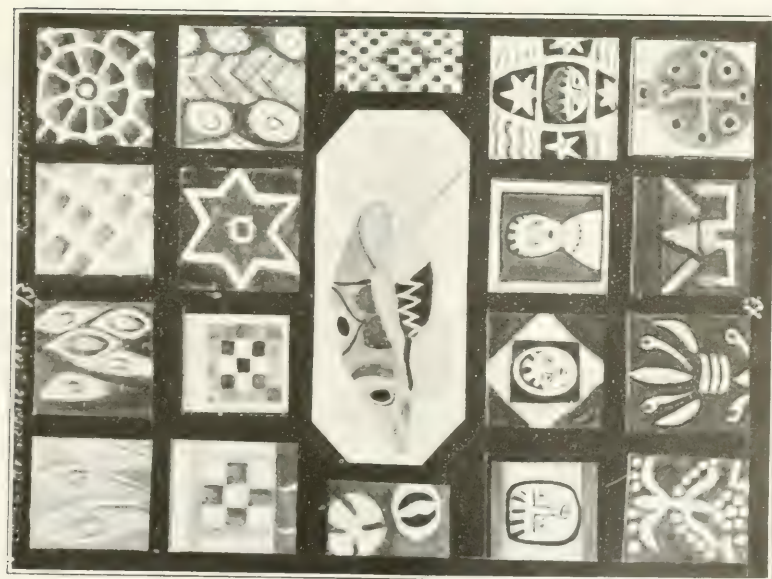


G. A. Eisen, del.

COLOMBAR MOSAIC GLASS



NEW YORK, METROPOLITAN MUSEUM: GOLD GLASS.



G. A. Eisen, del.
COURT MUSEUM MOSAIC GLASS.

Rods. The rods are either plain or decorated. The plain rods consist of monochrome rods of glass used singly or in combinations. They need no further description. The decorated rods were produced in various ways. *By dipping.* A plain rod was immersed in molten glass of a different color and thus actually coated. *By association.* A plain rod was placed in a mould in an upright position and surrounded by other upright rods of different colors, so placed as to produce a pattern. When these rods were fused and drawn out, a small rod as large as the original plain rod was produced, but the new rod contained in its interior the new pattern. This pattern was made visible either by cutting the rods in disks, or by grinding off the rod longitudinally. In the former process the rings were displayed or a center dot was seen surrounded by other dots, etc. By grinding off the longitudinal surface the central core appeared as a rod lined by two other rods, resembling a triple band, common in mosaic glass. *By rolling a sheet.* The decoration was also produced by rolling a sheet of glass and filling in the space with other rods. Such a rod when cut off horizontally looked like a scroll seen from the end.

Plates. Instead of rods, plates of even thickness were placed in the mould and the spaces between the plates were filled in with rods, of a distinct but uniform color. In this way star, scroll, spiral, cubist, chess-board, honeycomb, etc. patterns were produced.

Combinations of Plates and Rods. The greatest variety of designs could be produced by combining rods with plates. I instance some. *Stars.* A central rod was surrounded by plates. The latter formed the arms or points of the star, the rod was its center. *Volutes or scrolls.* By placing the plates in a circle, or a spiral, rings and scrolls were produced but these can be distinguished from rings and spirals and scrolls formed in a different way, because the plates never joined so accurately that their joints could not be recognized by an open space, a spur, a crease, or a break. Cubist heads, flowers, plants, fishes, insects, ornaments of every kind were produced in this manner, and constitute the glories of mosaic glass patterns. The star-bead glass of the Venetians was produced by such combinations of rods and plates, but in order that the star points might show on the sides of the bead, the latter had to be rounded off at the ends by grinding, or the beads were ground to faces like precious stones. The star-bead is of special interest to American students, as such beads have been found in many tombs in the Western hemisphere since the time of Columbus, all having been brought here by the Spanish or other traders.

Color References

French chemists, among them Berthelot in particular, have analyzed the colors of antique glass and published the results. From their accounts, we learn that the ancients used about the same minerals as do modern glass-makers, but they did not possess as great a variety. Unfortunately, all these researches are useless to the present investigator for various reasons. They do not describe the colors in such a way that we can understand what is meant and they are not able to tell from what locality the glass was obtained. Thus, all the work

must be done over, with material accurately dated and with control specimens deposited in some museum for future reference.

Without alluding to the chemical composition, it can be said that it is often possible to determine a bead or a vase by its color alone. A table of colors in use from the Old Empire in Egypt to the present day might be compiled, but the publication of such a table would offer innumerable difficulties which modern printers are not likely to overcome. Certain colors were scarce at certain periods and from time to time new colors were added. Thus brilliant crimson was not known until the time of the Ptolemies. In the time of the early Roman emperors the following new colors were introduced, perhaps from the distant Orient: opaque emerald green, opaque deep orange, a certain kind of opaque deep lemon. A most interesting study is in observing how the colors gradually disappeared, deteriorated or were replaced by others. Such deterioration and disappearance undoubtedly depended not alone upon taste but also upon changes in trade, in opening up new trade routes and in the closing of others. Keeping these colors in our mind, it is possible to recognize at once whether a necklace or a vessel belongs to Egyptian, Roman, or Mediaeval times.

KEY TO THE CLASSIFICATION OF ANTIQUE DECORATED AND MOSAIC GLASS

(The nomenclature and key are proposed by the author.)

A. SURFACE MOSAICS. Thread and band glass. The ornamental units are confined to the surface of the glass, or pressed into it. Principal types: Pls. X and XI, 1, 2, 3, 4, 5, 6.

Undisturbed Threads and Bands (Pl. X, 1). The units consist of threads and bands, always more or less retained in the same position as when laid on the matrix. Varieties: *a.*—Threads deeply rolled into the surface. *b.*—Threads slightly rolled in. *c.*—Bands deeply rolled in. *d.*—Surface bands. *e.*—Fused bands.

Dragged Threads and Bands (Pl. X, 2). The units consist of bands or threads which have been given a distinct character by the process of dragging. Varieties: *a.*—Waves. *b.*—Zigzags. *c.*—Arcades. *d.*—Garlands. *e.*—Foliate-plumate. *f.*—Semifoliate. *g.*—Scattered foliate. *h.*—Helicoid-foliate.

Overlaid-folded (Pl. X, 3). The units consist of bands or threads which have been disturbed by twisting, folding, or partial elimination. Varieties: *a.*—Single fold. *b.*—Single twist. *c.*—Double fold. *d.*—Double zigzag fold. *e.*—Triple fold. *f.*—Double ear. *g.*—Overlaid herring-bone. *h.*—Diamond or lozenge patterns.

Lamellated Mosaic Glass (Pl. X, 4). The units consist of thin lamellae applied to a matrix, transparent or opaque. Varieties: *a.*—Entire lamellae. *b.*—Fragmentary lamellae. *c.*—Framework patterns. *d.*—Tesselated patterns.

Incrusted Mosaic Glass (Pl. XI, 5). The units consist of fragments of glass rolled into a matrix. They are generally irregular. Varieties: *a.*—Incrusted fragments. *b.*—Incrusted rod sections. *c.*—Bead incrustations. *d.*—Volute-rods. *e.*—Star-bead incrustations.

Gutta or Drop Glass (Pl. XI, 6). The units consist of drops of glass fused onto the matrix, and more or less deeply rolled in. Varieties: *a.*—Scattered guttae. *b.*—Confluent guttae. *c.*—Embossed guttae. *d.*—Drawn guttae. *e.*—Hour glass guttae. *f.*—Rod drops.

B. IMBEDDED MOSAICS. The ornamental units are imbedded in a more or less transparent matrix but do not reach the surface of the glass except where this has been accidentally worn or, occasionally, purposely ground off. The units are for the most part, threads, bands, gold leaves, and crystals, and sometimes even rods, but the latter are never intended to stand on end. Principal types: Pl. XI, 7, 8.

Rod Glass (Pl. XI, 7). The matrix is made up of rods, the ornamentation resulting from the greater density of the edges of the rods or from colored rods alternating with transparent and uncolored ones. Varieties: *a.*—Simple rod glass. *b.*—Parallel rods. *c.*—Parallel rod-waves. *d.*—Fasciated rods. *e.*—Streamer rods. *f.*—Surface-threaded rods. *g.*—Ground-off rods.

Trina and Lace Glass (Pl. XI, 8). The matrix is made to contain rods, threads, or bands in its interior. The bands etc. are twisted into spirals etc. Varieties: *a.*—Single trina. *b.*—Multiple trina. *c.*—Beaded trina. *d.*—Rectangular trina. The name "trina" seems preferable to "lace glass," the latter name being also applied to an entirely different type in which the threads themselves form the matrix. *C. MATRIX MOSAICS.* The matrix of the glass is made up of mosaic units which penetrate, more or less, the whole glass from one surface to the other. Generally this glass is intended to be viewed both in transparent and overhead light. Principal types: Pls. XI, XII, and XIII, 9, 10, 11, 12, 13, 14.

Agglomerated Mosaic Glass (Pl. XI, 9). The matrix is made up of fragments of various kinds of glass in the rough, fused into a mass in which the units retain their outline and color. Variety: *a.*—Brescia glass.

Maculated Mosaic Glass (Pl. XI, 10). The matrix is made up of fragments or sections of bands, etc., all fused to such an extent that the original form has been more or less lost. Varieties: *a.*—Plain maculae. *b.*—Maculae of columnar mosaic glass.

Onyx Glass (Pl. XI, 11). The matrix is made up of layers, fragments, or rods in a manner to imitate natural stones, such as onyx, carnelian, chalcedony, agate, alabaster, murrina (fluor-spar?), marble, jasper, etc.

Stratified or Layer Mosaic Glass (Pl. XI, 12). The matrix is made up of sheets of glass standing on end, or perpendicular to the surface. The layers are always more or less parallel to each other even when bent and twisted. As the principal types have been described in *Art and Archaeology*, VI, 1917, No. 2, p. 69, they need not be rehearsed.

Columnar Mosaic Glass (Pls. XII and XIII, 13). This type is also known as millefiori glass. It is generally spoken of as mosaic glass, and dealers and museum men often commit the error of calling it "murrina glass." The columnar rod glass is so called because it is made up of masses of columnar rods, standing on end and packed

side by side in a parallel manner and fused in a mould. The cylinder is afterwards cut into thin slices, and the glass is made of these slices either by placing them over a core of common glass, or along the walls of a mould, after which a bubble of glass is blown against the slices so as to hold them together.

Gold Glass (Pl. XIII, 14). This glass contains a film of gold or other metal, enclosed between layers of transparent glass.

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Generalities

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Geographical Value. Anthropological Importance. Religious Nature. Educational Value.

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Glaze. Paste. Glass. Iridescence. Lustre. Oxidation. Preserving the Glass and Enhancing its Colors. Plain Glass. Surface Threads and Bands. Mosaic Glass. Core-spun Glass. Tube-blown Glass. Pressed in a Mould. Blown in a Mould. Bubble-blown Glass. Stratified Glass. Rod Glass. Cameo Glass. Vasa Diatreta and Opus Interrasile. Enameled Glass. Turned Glass. Handles. Lip. Surface.

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Intrusions

Old Intrusions. Recent Intrusions.

Special References

Gold Glass and Gold Glass Cups. Sacred Vessels Reproduced in Glass. The Units of Columnar Mosaic Glass: Rods, Plates, Combinations of Plates and Rods. Color References.

Key to the Classification of Antique Decorated and Mosaic Glass

Bibliography

REVIEWS

HANDBOEK TOT DE GESCHIEDENIS DER CHRISTELIJKE KUNST.

By DR. F. PIJPER. Large octavo, 257 pp.; 125 illustrations in the text and 55 plates. Martinus Nijhoff, The Hague, 1918. fl. 10.

This is, undoubtedly, the first work of its kind of so comprehensive a character. Immediately the question springs to one's lips "Can a single volume cover so vast a field in an adequate manner?" Obviously it cannot, and herein lies the greatest fault of the book. The critic is puzzled at the daring boldness of the writer. Professor Pijper, within two hundred and fifty pages, endeavors to trace the history of church architecture, sculpture, and painting from the Early Christian period up to the close of the Renaissance. Any one of these three divisions is more than sufficient for a volume of this size, even though it be a handbook.

Let us judge the work, however, by the intentions of the author. We must not forget that a handbook is not written for those already steeped in scholarship, but for those who have not been reached, as yet, by more ponderous tomes. The ultra-scientific works in German, the rather dry encyclopaedic works in English, the profound and specialized writings in French, covering various aspects of the history of art have been to a great extent inaccessible to the average student. The encyclopaedias and general histories of art frighten the lay reader by their tremendous collection of facts. Professor Pijper desires to reach the great mass of art lovers—to meet their needs as a guide, while at the same time he hopes to be of assistance to teachers and lecturers in the history of art, and to theologians.

The work, therefore, has two classes of readers: the students of art and the students of Christian thought. To satisfy these the writer would need both great scholarship and aesthetic feeling. Professor Pijper is, himself a man of very comprehensive learning but his handbook lacks both of the great qualities re-

ferred to which we demand. A history of art, or a guide to such a history, must not be a museum of facts, but an interpreter of facts.

Professor Pijper, in endeavoring to be a guide, is often too much like a guide of the *concièrge* type. The necessarily superficial way in which he is forced—by the size of his work—to describe the great monuments of art is indicated by the profuse repetition of non-descriptive terms and generalizations like the following:

“. . . rendered in the most beautiful taste”

“Giotto’s coloring is pleasant”

“The medallions of Luca della Robbia enclose splendid figures, and splendid also are . . .”

“Fra Angelico’s ‘Coronation of the Virgin’ is a great symphony of celestial sounds”

Concerning the portrait of Anne of Cleves by Holbein “It is said that the King himself was so moved by this flattering portrait that he asked the hand of the lady in marriage.”

The best part of the book is that pertaining to the Early Christian period, which is far more thoroughly treated than any other. It is clear that the author has read the writings of such distinguished authorities as Strzygowski, Wickhoff, and Venturi, but as to disputed questions—the influence of the East vs. the West, and the origin of important monuments, he takes a middle ground. He himself is not able, apparently, to enter into and to understand the fundamental issues of the discussion.

Perhaps it is better that the beginner in the history of Christian art should not be tangled up with conflicting theories; but after so promising a start, with the ground, so far, fairly well covered, even the novice must be disappointed in having to rush through the Middle Ages as he does, jumping from architecture to sculpture and then to painting, like a giant with seven league boots.

Our final criticism of the work is that it ends with the Baroque period. Doubtless a work must have its limits, but if it is to be called “A Handbook for the

History of Christian Art," we naturally ask, "Did Christian art die with the seventeenth century? Is there no Christian art in our own time?"

The great epochs for Christian art, we admit, were the ages of faith—the Middle Ages. Professor Pijper would have achieved greater success had he limited his book to a "History of Christian Art in the Middle Ages." But, if he includes the Renaissance, which was so largely pagan, we can demand that he satisfy our queries about more modern times.

In architecture the great Gothic revival of the nineteenth century, lasting into our own days, may be a mere reflection of a previous age, but is it not a Renaissance as were the Renaissances of the ninth, thirteenth, and fifteenth centuries? Great churches and cathedrals have been built—great experiments are still being made in our own age. Students of art can therefore demand that these at least be discussed in the light of history.

In painting, are the Pre-Raphaelite and Idealistic movements of the nineteenth century in England to be ignored, on the basis that they are reproductions of a previous era? Rossetti, Burne-Jones, Holman Hunt may have sought nothing more than to revive the spirits of Fra Angelico and Benozzo Gozzoli, but they themselves were painters of Christian themes, and have a place in the history of art.

In France, what about Puvis de Chevannes? Did he have no independent style? Are his panels illustrating the life of Ste. Geneviève to occupy no place in the gallery of Christian art? And one also wonders whether Jules Bastien-Lepage, L'Hermitte, Cazin, and Dagnan-Bouveret did not contribute to the same historic gallery?

In Holland today, Professor Pijper's own country, what about Toorop? In this painter there is certainly a Christian character. Neither modern nor primitive, but perhaps both, he belongs to the great mystics. He should, in some way, be included.

Notwithstanding these disappointments, Professor Pijper's work is not without value. His rather thorough

bibliographies at the end of each chapter, and his indexes at the back of the book, not to mention the numerous illustrations, which are well selected, make the book useful as an introduction to the subject of Christian art. Its chief value should be to theological students who will find in the monuments of art here touched upon much that is illuminating on the subject of the development of Christian thought and worship. Art is too little known, or at least too little utilized by our theologians and religious leaders. Perhaps this is one of the reasons for the lack of religious art today.

ARTHUR EDWIN BYE.

A Handbook of Attic Red-Figured Vases, signed by or attributed to the various masters of the sixth and fifth centuries B. C.
By JOSEPH CLARK HOPPIN. 2 vols. Pp. xxiv, 472 and viii, 600. Illustrated. Harvard University Press, 1919. \$8.00 per volume.

All students of Greek vases have long felt the need of an illustrated Corpus of signed Greek vases, and all students of art will be indebted to Professor Hoppin for producing a work which entailed much correspondence and endless detailed labor and search as well as great expense. Professor Hoppin's life-long study of Greek vases, his many articles in this field and his recent book on *Euthymides and his Fellows* have made him one of the best authorities on vases and specially fitted for the task. Klein's memorable volume on *Meistersignaturen* has long been out-of-date and was not illustrated. Nicole's recent *Corpus des Céramistes Grecs*, published in a preliminary form in the *Revue Archéologique* IV, 1916 pp. 373-412, which is to form part of a monumental *Recueil archéologique Paul Milliet* containing all the literature pertaining to all the Greek artists, is also not illustrated and does not give the fifty or more nameless painters whom Beazley (cf. *The Art Bulletin*, vol. II, p. 42), the most important scholar in this field, has identified, many of them—like the Achilles, Pan, Berlin amphora, and Niobid painters—artists of the very first rank. All the artists identified by Beazley with a definite name are included by Professor Hoppin. I miss only the Painter of

the Bologna Bell-Krater with Perseus, the Painter of the Deepdene Trophy Amphora (put, however, *s. v.* Oreibelos), the Painter of the London Sleep and Death (mentioned *s. v.* Pamphaios, however), and the Painter of the Syracuse Pelike with Dionysos and a Silen (mentioned however, *s. v.* Nikosthenes and Pamphaios). Cf. Beazley, *Attic Red-Figured Vases in American Museums*, pp. 160, 194, 23, 132. The works of the artists identified by Beazley are not illustrated by Professor Hoppin and the material on them is all taken from Beazley, so that one who desires to know their style must go to Beazley, though Hoppin has brought together his lists in more practical form. We would have liked an illustration or two in the case of each to enable the reader to judge their style. For the other artists an illustration is given of every signed vase where it has been possible to secure one; and it is remarkable how few (less than 25) could not be secured, considering the difficulties due to the European war. The material from Petrograd and from Austria and Germany naturally shows the biggest *lacunae*. In several cases vases have disappeared and cannot be located. In many cases good illustrations of signed vases appear here for the first time and in some cases new signed vases such as my Talaos pyxis are here first published. The material is marshalled with full bibliography (sometimes badly arranged) under the various painters and potters in a numerical order alphabetically by cities and their museums, the signed vases followed by the attributed vases and by a list of subjects and shapes employed by each master and sometimes by a third list of other attributions. For the sake of completeness it might have been well to mention Praxias whose activity lay in Athens, even if he was not an Athenian but a Metec, and even though the red-figured amphora signed by him (Klein p. 31) has disappeared. Thyphethides might also have been mentioned (Brit. Mus. III, E 4) even if the cylix in the British Museum is not his.

The present work is invaluable to the student in many respects and will save much labor. Captions at

the top of the pages, at least of the names of the artists, would have made it easier to find references given to artists, as in the index, and not to pages. I cannot feel that the intention to publish "plates large enough to reproduce the artists' work in a form sufficient to permit the analysis of stylistic details" has been carried out with entire success. In general, the illustrations are excellent but in many cases conclusions as to stylistic details cannot be based on them, and the student of style must go to larger publications and to the vases themselves. A work of this kind with its infinite detail and countless references even despite the verification of every reference, as stated in the preface, is sure to have several minor slips and misprints, especially in the inscriptions. Only because this work is so important and because its importance consists in being complete and accurate in detail, do I venture to point out some of the more important. Many in vol. I are already corrected in the Addenda in vol. II, pp. 487-494. The mistakes in the indices are easily corrected and so I omit them. P. 10. Not the god Ares but the goddess of revenge, *Aré* is represented. P. 25, No. 26 has been published by Luce in the *Philadelphia Museum Journal* 1917, pp. 25f. figs. 5-6. P. 49. To bibliography add *Oesterr. Jahreshefte* 1909, p. 100. P. 77. Under the Painter of the Berlin Nike Hydra it would be better to place the vases in New York given as nos. 25, 26 under the Niobid Painter, vol. II, pp. 240, 241 (cf. Beazley, *V. A.* p. 152) P. 106. Tonks' Brygos is published in *Memoirs of the American Academy of Arts and Sciences*, xiii, pp. 65-117. To the bibliography add Mahnberg, *Jour. Minist. Instr. publ. russe*, June 1906, pp. 97 ff. and Vik, *Vom Atelier des Brygos*, Prague, 1915. P. 130. Add cylix in Florence attributed to Brygos by Tosi in *Atene e Roma* 1917, pp. 190 ff. P. 134. Add Miss Lamb's kotyle in style of Brygos like that from Rhitsona (p. 140, no. 100 published not by Beazley but by Burrows and Ure: corrected by Hoppin in vol. II, p. 489 to Burrows and Ure), which she published in *J. H. S.* 1918, p. 31, pl. IV

(formerly in Hope Collection). P. 140. Add cylix in Villa Giulia (like no. 4, p. 110) attributed to Brygos in *Boll. d'Arte* 1916, p. 343. P. 178. Add cylix from Vignanello attributed to Chachrylion in *Not. Scav.* 1916, pp. 37-86. P. 284. No. 80. I. The inscription is wrongly divided and in index II, p. 524 wrongly interpreted. P. 284, note 1, Read skolion (a drinking song) for scholion and the reference to Theognis should be to l. 939, not 949. P. 298 has several mistakes in the inscriptions, if the illustration on p. 299 is correct. Agamemmon is omitted, Kymothea should be read, not Kymathea, as on p. 346, no. 4. Read Oukalegon for Oukalygon. In Achilles and Antilochus the forms of chi and sigma differ from the illustration and in Epigenes the form of gamma is wrong; the last omicron is omitted in Patroklos but given in the illustration, etc. P. 320. In inscription ET, seen in illustration, is omitted in inscription of Epiktetos. P. 362 and 366. Rho differs in the inscription from the illustration. P. 396. Inscriptions for B. are omitted but given in addenda vol. II, p. 493 but even there—*las kalos* is omitted. P. 404. For names of the hetairae refer to Robert in *Hermes*, 1905, p. 480. P. 410, note. The reference to Sappho should be to Bergk, *P. L. Gr.*⁴ III, p. 97, frag. 23 and the Greek verbs should be interchanged. P. 419. Add the three or four cylices attributed to Euphronius or Onesimus in *Boll. d'Arte*, 1916, pp. 343, 344. P. 421. In inscription the sigma exists at end of Panaitios. P. 430. Two mistakes in accent in inscription.

Vol. II, p. 3. 2 a is part of a calyx krater, not a column krater. P. 3, no. 4. Transpose A and B. P. 4, no. 6. Inscription probably should be *Chaire su*; no. 7, the inscriptions *kale he pais* and *kalos* are omitted (*J. H. S.* 1916, p. 129). No. 9 in Beazley's list (Florence 3999. A.) is also omitted. For no. 10 read two men for two women. Pp. 10, 11 the illustration is wrong as also in F. R. pl. 93. The signature of Hegesiboulos should be read backwards and the Attic forms of gamma and lambda with angle at bottom are perfectly clear on the vase, no Ionic lambda as Hoppin gives it. P. 17. Only last two letters of *epoiesen* can be seen in illustra-

tion. P. 20. Only four letters of signature are given when illustration shows all preserved. P. 22. In the signature of Hermonax sigma should be the same in all cases, four-barred. P. 46. Read Jhb. 1917 for 1916. P. 80. Refer to Gardner's *Principles of Greek Art*, p. 270 and Huddilston, *Lessons from Greek Pottery*, p. 74. P. 86. Add reference to *Boll. d'Arte*, 1916, p. 343. P. 116. Inscription on I not given as in Walters, as is said. P. 130, no. 4. read stove for stone as Beazley does. The catalogue says a distaff, not a mirror, and a basket with handle and three feet, not a stove or stone. P. 132, no. 1. Under A delete the two letters given at the beginning of the inscriptions and put under A the inscriptions wrongly put under B. Bracket first letter of Hippokles. For Silens read Silen. P. 138 delete second letter in first inscription of A. Xanthippe is not retrograde and sigma is three-barred and theta dotted. Other inscriptions badly reproduced. *Kalos* is probably meant. P. 141, no. 10. Read *V. A.* p. 42, fig. 24, for p. 68. Pp. 144, 145, nos. 25, 29. Refer to Beazley, *V. A.* p. 43, and Lützow, *Münchener Antiken*, pl. 29. P. 164, no. 6 B. Read man for men. P. 180. No second iota in *Hygieia*. P. 200. Two New York vases of the Meletos painter are omitted (12. 236. 1 and 2). See *J. H. S.* 1914, pp. 195, 226 and *V. A.* p. 166. P. 202. For *Sitzber. Münch. Akad.* III, read II. Inscriptions badly given. M in *Artemidos* is preserved. Hoppin wrongly here and in index reads *Kothon* for *Skonthon*, which is clear in the illustration and which I explained in *A. J. A.* 1908, pp. 431 ff. He omits entirely the name of one of the horses, P[ist]ô as given by Mrs. Dohan (Miss Hall). P. 206. Final letter of all three words in signature wrongly given. P. 208, no. 8. Transpose A and B. P. 213. Add New York pelike 96. 1021.144. P. 233, no. 7. Sambon pl. 15 should be pl. 16. P. 237. Add Bonn fragment in *Jahrbuch.* 1899, p. 166; *V. A.* p. 195. P. 239 transpose A. and B. P. 245. Add Beazley's no. 46 (*V. A.* p. 150) from S. Russia published in *Bull. Com. Imp. Arch.*, 1911, p. 50, figs. 5-7. P. 247. It is hardly correct to say that the name Memnon occurs only on vases attributed to

Oltos (cf. cylix of Chelis in Hoppin, vol. I, p. 186, of *Euerigides* p. 373, no. 28, p. 374, no. 32) even if by name is meant the *kalos* name. P. 248. Inscriptions badly given. A. the t is omitted in *Antilochos*. B. Delete IT. P. 250, note 1. The vase mentioned by Reinach is undoubtedly the modern copy which I saw exhibited in the Louvre a few years ago and which is still there, I think. There are similar copies by the same hand of the Oltos cylix in the Vatican and in Mr. Warren's collection at Lewes (cf. my remarks in *A. J. A.* 1917, p. 167). P. 253, no. 13. Inscription badly given. P. 261, no. 47 C. The Baltimore Oltos fragment was published by me in *A. J. A.* 1917, pp. 159 ff. with illustrations. P. 262. Add to other attributions to Oltos Nicosthenes 4 (Beazley, *V. A.* p. 10, no. 11) and Hartwig, pl. VI. On p. 272 twice and in index the Greek verb is wrongly given as *prosagareuo* for *prosagoreuo*. P. 280 ff. For *Bonner Stud.* read *Bonner Stud. dem Kekulé gewidmet* 1890. P. 313¹ read acquired. P. 327. Inscription has two mistakes. P. 334. Under Graef read no. 69 for p. 69. In A inscriptions badly given. P. 360. For *Hydrophoriae* read *Hydrophoroi*. P. 380 A. Next two letters to last reversed. P. 391. Two other vases attributed to the Providence Painter are at Oxford, Hoppin's no. 10 and Oxford 277 (A. Athena. B. King) omitted by Hoppin but attributed to that painter by Beazley *V. A.* p. 194. P. 394, no. 45 is out of order.

Let no one think that the comparatively few minor errors in these two volumes detract from their scholarly character and usefulness to students of art in general and of Greek ceramics in particular. This is one of the most valuable contributions and practical helps to the study of Greek vases that has appeared in recent years, and the many fine indices add immensely to its value. Professor Hoppin and the Harvard Press are to be congratulated on being able to produce in America such a work, which for the first time makes every signed or attributed vase practically accessible to the student.

David M. Robinson.

NOTES

THE NINTH ANNUAL MEETING OF THE COLLEGE ART ASSOCIATION OF AMERICA

At the invitation of the Cleveland Museum of Art the committee on time and place has decided to hold the ninth annual meeting of the College Art Association of America at the Cleveland Museum of Art, Cleveland, Ohio, Thursday, Friday, and Saturday, April 1, 2 and 3, 1920. Preparations for a large attendance are already under way. A number of interesting speakers are assured, and provision is being made for the entertainment of members and guests of the Association. The local committee on arrangements is at work on its part of the program, and it is expected that access to important art collections in Cleveland and vicinity will be secured. The Cleveland Museum of Art has generously placed all its resources at the disposal of the Association.

RECENT CONTRIBUTIONS TO ART HISTORY

The gradual resumption of the relations of peace has brought many surprises and perhaps not the least among them is the discovery that our enemies remained remarkably active in research throughout the war. Their published material of the past few years is now being received so rapidly that it is difficult to keep pace with it. It seems useful, therefore, to call attention to a few studies of uncommon interest which might otherwise fail of the notice they deserve.

Leonardo da Vinci is too bright a star to be dimmed by clouds of powder smoke. During the last five years, partly because of the celebration of the fourth centennial of his death, he has more than any other artist en-

gaged the activity of students of art history. Of their contributions the most fascinating and probably the most significant is that concerning Leonardo's equestrian works published by Simon Meller in the *Jahrbuch der Preuss. Kunstsammlungen*, vol. XXXVII, 1916, pp. 213-250. For a period of twenty-five years Leonardo worked at the problem of the representation of horse and rider. The fate of the monuments for which his studies were made is well known: the painting of the Battle of Anghiari soon faded from the walls of the Palazzo Vecchio in Florence; the Sforza monument was made ready for casting, but the great clay model, after the fall of the Sforzas, was destroyed; the Trivulzio monument did not reach even its final model. Our knowledge of these works has heretofore been based upon drawings and inadequate descriptions. But reproductions of Leonardo's models for the two equestrian monuments are recognized by Meller in a Milanese engraving, in drawings by followers, and in two small bronzes. The engraving shows four equestrian groups. It has usually been regarded as derived from Leonardo's drawings, but the small rectangular pedestal in each case and the tree trunk used as support in two cases indicate that the groups are copied from models. The vanquished warrior in one of the groups tallies exactly with a statuette in the Trivulzio collection, Milan (Pl. XIV, fig. 1). Our knowledge of Leonardo's last equestrian undertaking, the Trivulzio monument, has always been meager. Now, however, according to Meller, we may see in a little bronze lately acquired by the Budapest Museum a casting of one of Leonardo's models for that monument (Pl. XIV, fig. 2). The peculiarities of the horse—for example, the broad back and the bulging, serpentine neck—as well as of the pose of the rider, are found in Leonardo's contemporaneous drawings.

More than a generation has devoted itself to the reconstruction of the archæological setting of Homeric times, while the corresponding study of the northern age of epic has been largely neglected. Readers of *Beowulf* and of the *Nibelungenlied* will be interested



Fig. 1—MILAN, TRIVULZIO COLLECTION: BRONZE STATUETTE FROM LEONARDO'S MODEL FOR THE SFORZA MONUMENT.



Fig. 2—BUDAPEST, MUSEUM: BRONZE STATUETTE FROM LEONARDO'S MODEL FOR THE TRIVULZIO MONUMENT.



Fig. 3—NARANCO: STA. MARIA. EXTERIOR WITHOUT LATER ADDITIONS.



Fig. 4—NARANCO: STA. MARIA. INTERIOR IN ITS ORIGINAL CONDITION.

in the recognition in the so-called church of Sta. Maria at Naranco in Spain of such a hall as that of Heorot and that of Kriemhilden. Albrecht Haupt, in *Monatshefte für Kunstwissenschaft*, vol. IX, 1916, pp. 242-263, gives a fuller account of this structure than in his earlier book and, by distinguishing the kernel of the building from later additions, brings to light a perfect eighth century example of the old king's hall (Pl. XIV, fig. 3). The building has a ground story divided into three rooms, above this is the long hall, with an outlook room at each end. The hall is entered from each side through a raised portico reached by a pair of steps. The location is on a hillside, and to the discrepancy in ground level corresponds the arrangement at the entrances. On the side toward the hill, where the king entered, a few steps led down from the portico to the floor of the hall; on the opposite side steps led up. Though the building has a gable roof externally, its interior is barrel-vaulted (Pl. XIV, fig. 4). The hall is divided into seven bays and is lighted through the outlook rooms at the ends. This is, in paradigmatic purity, the type of hall whose history we can trace from the reception-hall of Attila described by Priscus (not to mention Valhalla) through various Carolingian and Scandinavian examples down to the Renaissance Lusthaus at Stuttgart.

Americans have become somewhat accustomed, though not indifferent, to seeing the prerogative of first publication of objects in American collections given to foreigners. Seldom, however, has such publication been made the basis of so far reaching an investigation as it is in the case of the Albanian treasure of the Morgan collection. Josef Strzygowski in his *Altai-Iran und Völkerwanderung*, Leipzig, 1917, takes this treasure as point of departure for the study of the influences exerted by the ornament of central Asia upon that of western Asia and Europe. Géza Supka has already pointed out linguistic connections between the treasure of Nagyszentmiklós and central Asia and more recently discovers many Buddhistic traces in the art of the barbarian invaders. Strzygowski traces the ornament of

the Albanian treasure back to Altaic prototypes of the bronze age. This ornament is primitive arabesque and, according to the author, was introduced into Mohammedan art by the Turks. In contrast to the view of Riegl, whose work is partly refuted, partly supplemented by the present book, the arabesque is of Asiatic origin and developed from geometric ornament, not from Hellenistic plant ornament. In this study of ornament, also, but particularly in a more recent publication, *Die Baukunst der Armenier und Europa*, Vienna, 1918, Strzygowski attempts to trace powerful artistic influences in connection with the barbarian migrations. Most striking, perhaps, is the evidence that the Byzantine architects learned eastern dome construction from the Armenians.

JOHN SHAPLEY.

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Drawing

by ALFRED M. BROOKS

(The substance of a lecture given at the Metropolitan Museum of Art, New York, January 4, 1920.)

IT is my purpose to say a few elemental things about the art of drawing, and to offer concrete illustration of these things. My hope is that what I say, my suggestions, will be put into practice. By practice I mean thinking of these suggestions, that is, applying them while reading the daily papers or turning the pages of illustrated magazines and books.

My subject then is drawing, a fundamental and wonderful art and, verily, what Leonardo da Vinci called it, "father of all the arts." Drawing means that which is left behind when an instrument, pen or pencil, is dragged over a sheet of paper. That *something* is a line. What we think of when we speak of a drawing, in the sense of a picture, is a picture made up of such lines. In other words the sum of all the lines, a newspaper cartoon or a crayon head by Rubens, the sum of all the lines, the picture, conveys to us a just comprehension of what has been drawn, that is, the subject. While I am well aware that arid definition such as this is far from illuminating, yet none the less do I hold with Voltaire that defining terms is a prime requisite to mutual understanding. Therein lies my excuse for this much of what is so dry.

The great Italian of them all, Leonardo da Vinci, described drawing as being what I have already said, "father of all the arts." About two thousand years before him the "master of those who know," Aristotle, declared that "youths should be taught to draw in order that their perceptions of beauty may be quickened." In the latter half of the nineteenth century that scientist who was truly an educator, Thomas Huxley, said: "Everybody, or almost everybody, can learn to write and writing is a kind of drawing. I would require all to

draw." Here is the testimony of the ancient philosopher, the Renaissance artist, and the modern scientist *par excellence*, in respect to the value of drawing. There are, doubtless, those who will say that such evidence is uncalled for. Surrounded, as we are, by the witnesses to poor drawing on every hand, and knowing, as all must who have given the matter any careful consideration, how few there are who take an interest in drawing as such, or in its products, works of the highest art, old and modern—surrounded thus I must differ, as far as differing can go, with all who hold that such evidence is uncalled for.

Drawing, when good, is truth-telling in lines as writing is in words. Conversely, bad drawing is lying by means of lines, a fact lamentably patent in things as widely divergent as portraits of men and diagrams for accompanying deeds. The point, permit me to repeat, is this: drawing means to picture forth ideas by means of lines. This leads to a further consideration, a subject universally recognized yet rarely thought about. Intelligent people always distinguish between matter and that which is the opposite of matter. For lack of a better term I say spirit. Now an artist must be, before all else, an intelligent man. His first concern is with matter. He represents what he sees before his eyes. His second, but not less important, concern is spirit, which, to all intents and purposes, is that which makes matter alive. In other words, every real artist, by means of lines, compels us to recognize what he has drawn, a face, for example, and then he makes us understand something of the life behind the face, that is, the spirit of his subject. To put it differently, every great artist draws something of what he sees, and something of what he thinks about what he sees. Or, putting it still differently, every great artist gives us a portrayal of matter-of-fact and, in that portrayal, a gloss or an explanation of his reaction to matter-of-fact. This was never more clearly recognized than by Tennyson when he wrote:

"As when a painter poring on a face,
Divinely through all hindrance finds the man
Behind it, and so paints him."

For example, Froude, speaking of Raphael's portrait of Pope Julius II., describes it aptly as the picture of that old man in the red velvet cape who looks like a "slumbering volcano." Raphael drew recognizably the shape of Julius' head, of his beard, of his eyes, of his shoulders, of the chair in which he sat. These are all matters-of-fact. Raphael then did something more. That something more was the imbuing of these matters-of-fact with the personality or spirit of Julius—spirit made evident in his own description of himself: "I am a soldier not a scholar; put a sword into my hand not a book." This personality, spirit, the something more, is just what Froude means when he speaks of Julius as looking like a "slumbering volcano." To make use of Tennyson's words, Raphael, through all hindrance, found the man, Julius, and so painted him. It might be added that as drawing means what is left, the marks or lines, when an instrument, a pencil, is dragged across the surface of paper, so painting means what is left when an instrument, a brush, is dragged across the surface of canvas. This is only an analogy, but an analogy in which, when you have made allowance for all differences between the ordinary conceptions of drawing and painting, based on differences of media there remains much of useful truth.

Turn now to a different angle of the subject by way of illustrating the selfsame fact. Leonardo da Vinci made drawings in black line upon white paper (what is ordinarily thought of as a drawing) of that common, pretty plant called star-of-Bethlehem. His drawing portrays the facts about the plant so clearly that no one who has ever seen the plant can fail to know of what the drawing is, and one who has never seen the plant will learn so much from the drawing that when, for the first time, he comes upon the plant he may recognize it at once. After looking carefully at Leonardo's star-of-Bethlehem, open your botany and look at the scientific botanical illustration of this same star-of-Bethlehem. In it you have the right number of petals, the true branching of the stems, exact statements concerning stamens—matters-of-fact, all, and

all important in the portrayal of truth. But what is the difference between Leonardo's drawing, a thing beyond value, and that of the botany? Mind, I am not speaking disrespectfully of the drawing in the botany. I am merely calling attention to a difference between Leonardo's and the other and asking in what the difference consists. Here is the answer: in one case, the botany, matter-of-fact, scientific accuracy to physical fact; in the other case, Leonardo's, the significant beauty, spirit of beauty which *through* the matter-of-fact made appeal to one of the greatest minds of all the ages. This significant beauty he portrayed by drawing that which contained it as body contains soul. To put it differently, by means of the likeness of what he saw, he has given us a true and therefore lovely portrait of what stirred his admiration.

Compare, in the same way, a botanical drawing of oak boughs and leaves with a crayon drawing of oak by John La Farge. In the former what is lacking which characterizes oak, which is primarily significant of oak, to all men? The expression of strength is absent. "Strong as oak" has passed into a proverb. Strength means the spirit, the very soul, of oak. What does La Farge's drawing tell us over and above the shape of the oak leaves and the growth of the oak boughs? It tells us, speaks to us, of strength. La Farge has reported matters-of-fact but he has made them the vehicle for conveying to our minds the universal, the "super-fact," if I may be allowed such expression, the "super-fact" of the strength of oak. In other words, La Farge has drawn the body of a specific oak and given to that body the soul of all oak. He has done what Leonardo did with the star-of-Bethlehem, the spirit of which plant, if you insist upon a term, may be called grace. And he has done what Raphael did with Julius II., whose spirit, if you again insist upon a term, was power. And this is the way of all great drawing and all great artists.

All great drawing implies a state of mind on the part of the artist. This state of mind is induced by the artist's grasp upon the spirit, the soul, of his subject, and grows out of his unique capacity for look-

ing into, as well as at, his subject, coupled with his ability to portray what he sees, understands, within, as well as what he beholds without. This is what no purely scientific drawing can do, or seeks to do. It is what no photograph can do because the photograph gives only what is before the camera. It does not look within. It is a machine. It cannot think and it cannot feel. It cannot interpret for it has no power of sympathy in it. It is the recorder of fact, but fact uninformed by spirit. In a word, it is not human. On the other hand, the mind of man can think and feel and can be thrown into "a state," that is, can become inspired. The true artist, the great draughtsman, Holbein, gives us the fact and gives us the state of mind into which the fact has thrown him, the picture of his inspiration; Raphael, the result of his understanding of the temper of a man like Julius II.; Leonardo, his understanding of the grace of a clump of star-of-Bethlehem over and above all facts such as the forms of petals and shapes of stamens; John La Farge, his appreciation of the spirit of oak, of the spirit of strength, lying behind the outward appearance, behind the forms of detail inherent in oak leaves and oak boughs as such.

What have we but foreboding in such a drawing as Rembrandt's *The Trees*, storm-swept as they are by the wind which heralds the rain, not yet falling on them, but drawing near, and soon to fall on them? Or what in such a drawing as Rembrandt's *Unfaithful Servant*? One figure stands tall, commanding, angry; the other cowers. There are but very few and seemingly rough lines, yet lines which tell us facts, nay, more than facts, as to the positions and figures of master and servant—tell us of the spirit of each of them upon the momentous occasion which inspired the artist to make this record, the little drawing which the world prizes so highly. Again, what of such a drawing as William Blake's *Paolo and Francesca*, the twain swept through all eternity by the unceasing winds of passion, the essence of unending weariness? But no man can *really* draw the wind or the light! Yet Blake drew the former and Dürer the latter, not once, but many times.

What did they do? This brings us to the matter of line as an artistic convention.

It is a fact that in nature we find no such thing as line in the sense in which I have already defined it, and in which line is commonly understood. We see objects—heads, for instance—leaving off and backgrounds beginning. If we hold a lily against a background of leaves or against a background of dark paper, what we see is the shape of the lily. When we cease to see the lily, we see the leaves or the paper. The flower is not defined by lines, but man, in order to convey an impression of the shape of the flower and to tell us what are its bounding limits and where the background begins, has, time out of mind, made use of the convention of line, that is, he draws the shape of the lily with line, with something we do not see in nature because it does not exist there. This is a convention, but it is a convention which can convey much of fact and much of significance and, in the hands of an artist, be the means of recording consummate beauty in the guise of truth.

I said that it was impossible to draw the wind or light, and I spoke of Blake's drawing of Paolo and Francesca. In it we see the lovers swept through space by the wind. Like nothing in nature, it is, however, perfectly plain in its explanatory clearness of the fact of wind. Or look at Dürer's drawing of Melancholy. Above the sea out of which the sun is rising, in the background of the drawing, there are great numbers of black lines spreading out over the sky like the sticks of a fan. They are pure convention, every one of them, resembling nothing in nature yet compelling everybody to think of the light rays of the risen sun. Again in Holbein's drawing of The Vision of Ezekiel we behold the four winds represented as puffy-cheeked faces in the sky. From the mouths of these four faces with puffy cheeks come straight lines down upon the sea. They are the wind and they stir it up as, in reality, the wind does stir it up. There is nothing like nature here, rather, a pure convention, but what all men accept as suggestively representative and highly explanatory and great considered as pure design.

Lines, like words, are conventions and to be good must be significant. This is clearly put by Locke in his *Essay on The Human Understanding* when he says: "The first and most palpable abuse is the using of words without clearly defined ideas; or, which is worse, signs without anything signified." In place of the words *signs* put the word *lines* and we have a most exact statement. There is nothing worse in drawing than the setting down of a single line which has not significance, just as there is nothing worse in writing than the putting down of a single word which has not significance. And the one thing which we may learn from the study of such drawings as Leonardo's, Holbein's, Dürer's, Raphael's, and La Farge's is that these men regarded every touch as precious because every touch had significance. The sum of truth which their drawings express concerning fact and concerning spirit depends upon the utmost significance being put into every line. Because of the dominant significance put by such men into every line and the resulting dominant significance of their drawings as designs, pictures, wholes, does their work take and hold its place as being, after its kind, transcendent.

There are a few easily distinguishable qualities common to all good lines: first, an even thickness throughout their length; second, a smooth, onward-flowing character, or a crumbly character. Permit me to call your attention to the reason why even thickness in line is, as a rule, a great virtue. I have already said we find no such thing as line in nature; that which we call a line and make so much use of, and by which so much truth and beauty are producible and preservable is a convention. Where one object leaves off another object, the background, begins. Now it stands to reason that if we are to find a satisfactory convention or symbol for this leaving off and this beginning we must have something which is homogeneous throughout its entire length. So when I decide to make a black line of measurable thickness (my symbol) represent upon a piece of white paper the bounding edge of the petals of a white lily and by means of this black line to

separate the body of the lily from the background against which I see it, that line which is of the same thickness throughout its length, therefore homogeneous, does in a measure keep faith to the condition of no line at all (the fact). If our line grows thick and thin it is an untrue symbol of a condition which does not change, that is, of petals leaving off and the background beginning. But if our line is of even thickness throughout its length it is a true symbol of that condition. I am well aware that there are those who will call this hair-splitting but the adage about calling a tail holds true none the less, and it is not hair-splitting. The smooth, onward-flowing line, the line without breaks, is the line which a man must be able to draw if he is going to represent correctly the bounding lines of human faces, of human bodies, or of the bodies of animals. On the other hand, the crumbly or broken line is the line which he must have at his command if he is going to draw the outlines of the trunks of oak and elm trees, or the features of ancient walls and towers, or the contours of mountains and precipices. There are other qualities characteristic of good line but my purpose is to make plain the fact that such qualities exist rather than to undertake an enumeration of them.

All really good onward-flowing lines are more or less flattened curves joined together. It is very rare that the arc of a circle will give us satisfactory results and never, when the subject which is being drawn is one which is remarkable for its strength, grandeur, or beauty as, for example, a fine female figure, a Venus, or such consummate types as those of Michelangelo on the Sistine vault. A striking characteristic of all the best drawings, without regard to actual dimensions, is the impression of size which they make upon the mind, their savoring of grandeur. Look at a drawing six inches high by Michelangelo or Dürer, and turn from it to one of the colossi of the Sistine vault. They impress us alike with the sense of magnitude. What gives it? The fact that all the curves which bound the figures are flattened curves and that each one tracks the eye, as it were, out into space on a great

line gives the sum of the whole the effect of a drawing every line of which carries the eye, that is, the mind behind it, off into considerations of bigness, whereas the arcs of circles, which lead the eye to complete every arc into its own circle, produce the sense of limitation, which, in the sum total, must produce a sense of smallness. Again, it is the flattened curve with the sharp bend at the end which in nature always speaks of what is strong. For example, the tendril of the grape-vine is a flattened curve throughout the greater part of its length but bends sharply where it takes hold of its support. The flanks of a strong horse are bounded by curved lines which are flattened, and by surfaces which are flattened, and not by full-sweeping curves, arcs of circles, and bulging surfaces, synonyms all for what is flabby and what is weak. No drawing was ever finer than that of the horses on the Parthenon frieze. Those small figures, small only in actual dimensions, always give the impression of grandeur and strength due, in large measure, to the reasons just explained. In other words, the arcs of circles single-track the eye and make for what is smug and "tight" and "hard" in a drawing as a whole, whereas the flattened curves do not single-track the eye but constantly carry it in directions and ways to produce the sense of freedom. This sense of restrained freedom gives the drawing its power of impressing the beholder with ideas of size and bestows sublimity upon it.

All this depends, of course, upon that of which we hear so much, technique. By technique is meant the actual workmanship, the doing as distinguished from the ideas expressed. I do not wish to be understood as saying that it is possible to separate the doing from the thing done. That is as impossible as it is to separate spirit from matter and leave what is valuable. But for working purposes there is such a thing as technique, the mere doing, *apart* from the idea. It is an essential means, but not an end, analogous to grammar, which is a means to human expression, through the medium of words, but not an end for which men care *per se*. Thackeray, in *Vanity Fair*, says something

which is much to the point about technique: "To use a cue at billiards well is like using a pencil,—you cannot master it at first and it is only by repeated study and perseverance joined to a natural taste that a man can excel in handling either." To excel in handling your tool; if it be a pencil, to make the marks light or dark, of even thickness throughout their length, onward-flowing, or crumbly, as you wish, and when you wish—all these and more—to the intended end of conveying a significance which you wish to convey, and to telling truthfully the matters-of-fact which you wish to report: that is technique.

Good drawing implies cleaving to the essential spirit of your subject; and never forgetting the meaning which lies behind the appearance, the significance of the thing or person which you are portraying. It means giving to this essential spirit an adequate body made up of lines—adequate being understood to mean truthful, or beautiful, or both. Good drawing implies ruthlessly foregoing every adventitious detail, no matter how interesting and lovely in itself, if such detail does not bear directly upon the intellectual concept of the matter in hand, that is, the artist's drawing of his subject. Michelangelo, for example, could have covered the ground in his *God Creating Adam* with pretty plants and entertaining animals, or could have filled the air with birds, but he did nothing of the sort. He gave us Adam, the figure of God, bare earth, and empty heavens, and he produced the thing which is sublime. Blake in his drawings for the *Book of Job* did the same thing. Recall that drawing which accompanies the text "Then went Satan forth from the presence of the Lord." It is entire, epic, consummate, beautiful in the statement of fact, yet almost bleak in its absolute disregard of everything which might have been but which would detract from the conceptual focus of the great verse.

Good drawing means "crystalline thought" made evident in lines, to use the perfectly descriptive words of Shelley's. It means putting down lines in a way never confused, no matter how complex. It means an

arrangement of lines which is always simple, in the sense of single, that is, direct. It means the telling of truth with affection. It means, so to speak, the out-pouring of the artist's first and most immediate thought about his subject according to the way in which the subject has filled him with inspiration, from the tip of his pencil or pen. It means what Walter Pater meant when he wrote that the "artist is often out of humor with himself because he cannot project into a picture the life and spirit of his first thought with the crayon." These are among the chief things which constitute the value of great drawings. In such we come into immediate contact with the artist's first thought and his first fire of enthusiasm to record it, and it is this which a man like Birge Harrison understood and expressed adequately when he wrote: "The great draughtsmen of the world can be counted on one hand. Of these, probably Leonardo da Vinci and Holbein were the most eminent examples. In these two men the sense of refined and tender line is so exquisite that we should almost prefer to have it without color." This from a man, a painter, with passion for color, from a living, modern fellow-countryman who is one in his comprehension of the supreme value of drawing with Aristotle, Leonardo, and Huxley!

Thoughts for Saint Sylvester's Day

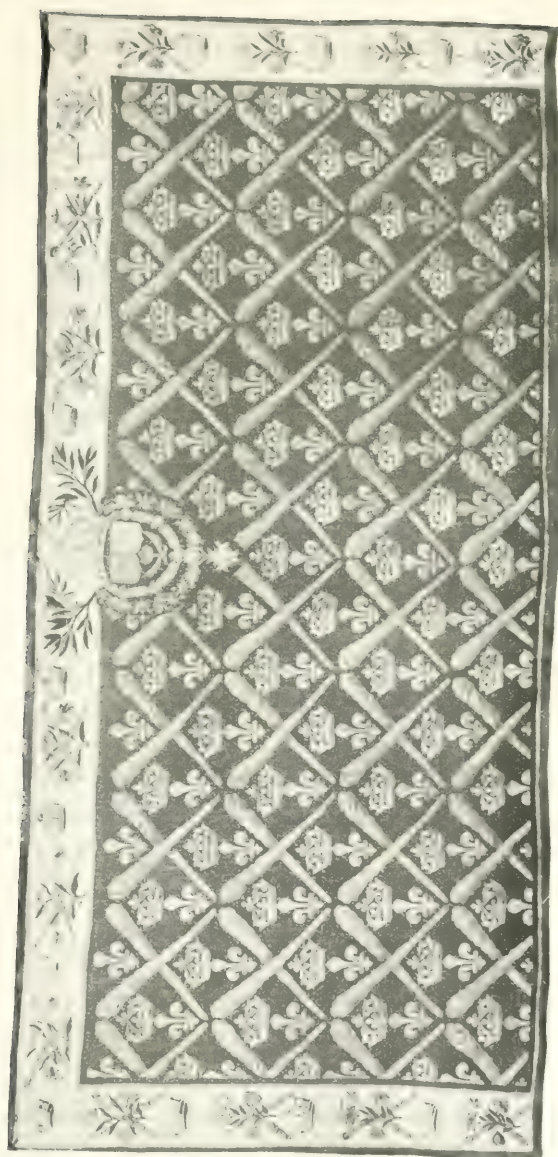
by BENJAMIN IVES GILMAN

(Conference held in the Gothic Room at the Museum of Fine Arts, Boston, December 31, 1919.)

SAINT Sylvester was pope at Rome in 313, the year of the recognition of Christianity in the empire under Constantine. Little is known of his history beside the false report based on forgeries of the eighth century that to him Constantine made a grant of Italian territory embracing what was afterward known as the States of the Church. The supposed grant later became notorious as the *Donatis Constantini*, upon which for centuries was based a claim for secular as well as spiritual sovereignty on behalf of the see of Rome. The legend has long been dissipated; and Sylvester's name has survived to modern times chiefly because the date of his burial, celebrated as the Feast of Saint Sylvester, has the distinction of falling on the last day of the calendar year.

The thoughts appropriate to Saint Sylvester's Day are, therefore, thoughts of the endings of things. It is a festival whose motto might be "*Respice finem*" (reflect upon the end).

There is no place that invites more insistently to this kind of thought than a museum gallery. Look about this one. The life of every object in the room, as that object was planned to live by its maker, has come to an end. The great tapestry with its threatening clubs in the center of the western wall is a fragment, the lower third having been cut off (Pl. XV). It was designed, so we learn, for the courtroom of a castle at Pau in Southern France, and there it hung, doubtless for generations, over-awing the accused before it and softening the voices of those who argued and decided their cases. But the lower edge was rubbed by the rough corselets of guards and torn by their sharp lances, until one day the old hanging was thought no longer presentable, and it was taken down, rolled up,



Boston, Museum of Fine Arts: Gothic Tapestry.



Boston, Museum of Fine Arts: Grave Slab.

and stored away. The life ended for which the designer fashioned it. Finally, shorn of its damaged edge, it has reached our museum and begins a new existence. Nevertheless, fully to understand the artist in it, we must remember that the life he foresaw for it has closed, and we must seek to picture to ourselves what it was while it lasted. The like can be said of every piece shown here. The thought of Saint Sylvester's Feast, of the 31st of December, is the thought for every one of them.

In some we can find traces of two ended lives. On the floor in the center lies a marble slab with a square cut on one end of it that seems to take no account of the elaborate design it mars (Pl. XVI). The life which the slab was planned to live came to a violent end when the cut was made. The designer carved it in South Italy toward the end of the 15th century as a lid for a sarcophagus containing the bones of a pious abbess, head of a Neapolitan convent. It was an object of reverent care and pious pilgrimage in the shadows of some crypt or cloister, doubtless for many years. Abbess succeeded abbess. The living memory of the Abbess Piscicella came to an end in the convent. There was reconstruction in the church. Economy was necessary. Some of the oldest tombs had to be sacrificed; and it was finally decided—from the result of the decision one can hardly think that it was made with much reluctance—to utilize the lid of the old tomb as the reredos of an altar. The face of the slab was turned to the wall to avoid offense, and a square opening was cut in it to admit a tabernacle or receptacle for holding the elements of the eucharist. As a reredos the old slab entered on a new life, vibrating for years and years to priests' voices and organ tones, its mutilated design hidden and forgotten in the darkness against the chapel wall. But one day the chapel in turn went out of use and the altar in turn was dismembered. For a second time the word *finis* could have been written on the old slab. Neglected in some courtyard or lumber-room, someone noted the design and suspected there might be money in it. It was bought of the sacristan, doubtless

for a song, and went to a dealer's. Now it lies here, living a third life.

There is another way in which the pieces here gathered utter the motto of Saint Sylvester's Day, "*Respice finem.*" The four most conspicuous sculptures in the room once decorated tombs. Behind every one of them there is an individual human life that ended centuries ago. They tell us of four real people for whom there was first anxiety and bated breath, then tears and mourning, and finally the pious care that sees a burial place fitly marked. One was laid to rest in a Neapolitan convent, two in French provincial churches, and one in a Flemish chapel.

Sculpture has everywhere and in all ages been associated with the end of human lives. It is enduring and promises a sort of earthly immortality; or perhaps mingles the thought of the dead with truths whose timelessness is reflected in its own apparently imperishable constancy. But a museum gallery bears sad witness to the short span that time and change accord to both these motives of monumental sculpture. The honored abbess, her memory safe in a marble pictured with her image, is forgotten, nevertheless, and the marble itself dishonored. The young maid or matron whose life, short as it was, was destined by her friends for remembrance, has left no name behind her and no sign beside the sculptor's work where or when she lived (Pl. XVII). From her coronet, her brooch, now empty, and her carefully arranged hair, we learn her gentle origin. The conception of the tomb—the body lying as in the coffin below, with a reminder of earthly companionship in the dog at her feet and of heavenly welcome in the cherubs with their censers at her head—is familiar in mediaeval Europe; and a certain simplicity and rigidity in the forms suggest France. From these and other characteristics of style and from the certain date of like tombs, the effigy may be ascribed without much doubt to a French sculptor working in the fourteenth century.

The Pietà, or Virgin with the body of Christ, also came to the museum anonymously (Pl. XVIII). The



Boston, Museum of Fine Arts:
Recumbent Tomb Figure.



Boston, Museum of Fine Arts: Pietà.

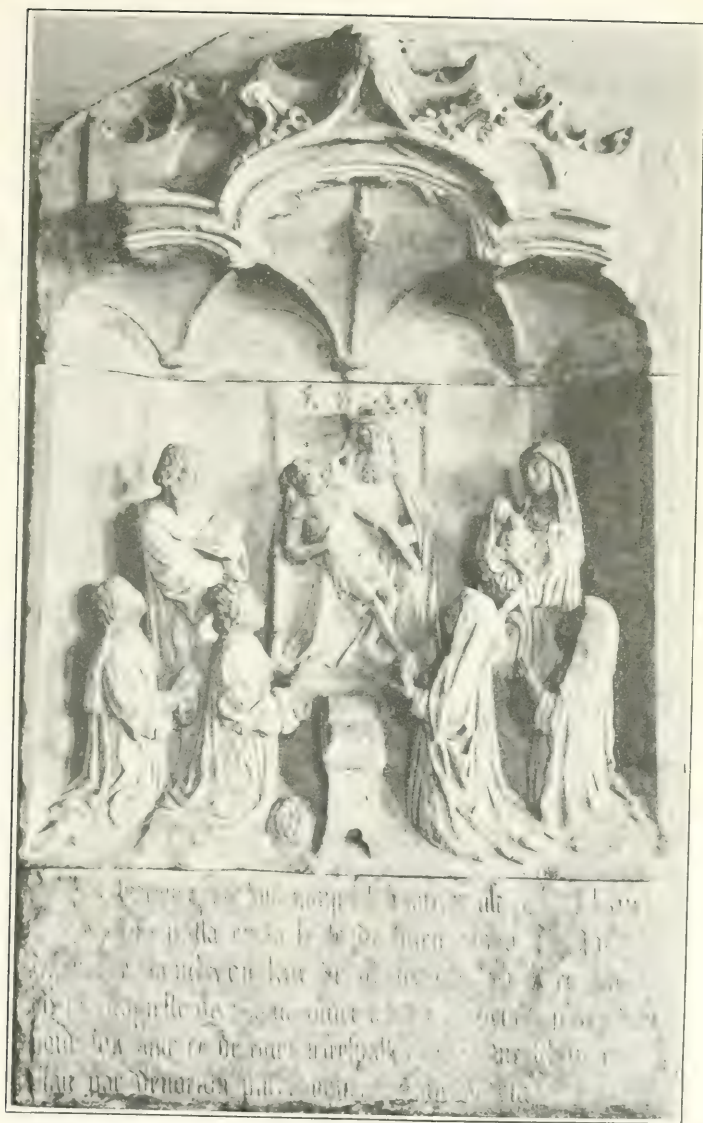
designer of the marble did what he could to tell us whose body lay beneath it. The pyramidal design of the group permitted the introduction of two escutcheons to the right and left of the principal figure, and these were separately carved and carefully fitted into the two blank surfaces of the background. They remain as witnesses of the pride which the family took in the denizen of the tomb, and were doubtless thought an all-sufficient indication. Yet the escutcheon cannot be traced in heraldic records, and it is only by good fortune that the museum has learned of the bearer from a living representative of his family. The arms are those of Messire Jean de Wignacourt, Knight, Governor of Quesnoy in the sixteenth century, whose wife was Jeanne Baillaud (or Bailleud) à Corneille. Whether it was he himself over whose tomb the relief was placed, or another of his line, we cannot tell. The work comes plainly from Eastern France, but as to its exact date the hand of the sculptor is our only guide and gives ambiguous testimony.

In the conception of the piece, in the attitudes, and in the modelling of the figure of Christ, there is a poignancy and simplicity of emotion which of themselves would date it in mediaeval times, before Europe had opened its eyes to the new hemisphere and become sophisticated with the new thoughts astir before and at the moment of the discovery of America. On the other hand, the monument lacks the purely religious character which its theme would have ensured to it in the Middle Ages. The armorial bearings already have a flavor of the world. The face of the Madonna looks like a portrait, and she wears a richly embroidered collaret. Is there a suspicion of self-consciousness in her attitude? Can it be that the figure is not the Madonna at all, but a patrician wife or mother mourning her husband or son in the archaic and symbolic figure of the dead Christ on her knees? The doubt suggests an age of transition for the date of the piece, and in fact it has been variously dated since it came to the museum. At first referred without question to the fifteenth century, it was afterward thought a product of the early sixteenth century, and now is definitely dated at the end of the 15th.

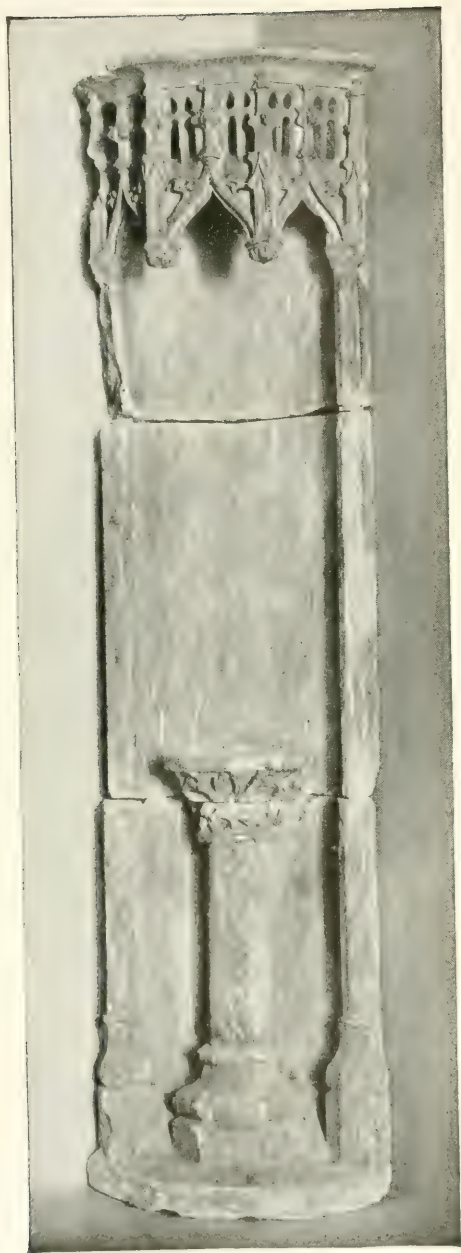
This date may distantly connect the monument in our fancy with one of the great epochs of French history. The century-long attempt of the English kings to capture the throne of France, signalized by their victories at Crécy in 1339 and Agincourt in 1415, and finally brought to naught by Joan of Arc in her short year of victory in 1429, left France for many years a theatre of violence. The tomb was carved during a period of the subsidence of a great tide of disorder, and its occupant may have been one of those caught in the ebb.

The fourth of these tomb sculptures, the elaborate little niche, might have told us more of the life whose end it marks but for the soft material from which the long French inscription on the base has melted away (Pl. XIX). By chance, four words remain—"Chapelle de St. Omer"—which place the monument in Flanders, for St. Omer was a Flemish saint of twelve centuries ago. The monument itself tells its date; first by its developed religious symbolism, hardened into ecclesiastical commonplace. What would have been more shocking to an early age of faith than to see its supreme deity, God the Father, imaged as seated in a carved chair, holding in His lap the stiffening corpse of His only begotten Son? Moreover, the family of the dead has chosen to see itself imaged here as bearing its loss under the tutelage of appropriate saints, and even by the help of an image of the Virgin and Child, carried in the arms of one. These are the refinements and conformities of a learned churchly discipline, such as was firmly established in Europe by Luther's time and helped to give edge to his protest.

The architecture tells the same story. It is highly developed technically and imaginatively, but the forms have lost the structural sense to which they owe their being, and have become an intricate web of graceful pattern. We learn that there is still a third way in which the pieces gathered here repeat the motto of the day, "*Respice finem.*" Types of fancy—what we know as styles of art—can come to an end like the objects that illustrate them and the people for whom and by



Boston, Museum of Fine Arts: Niche with Figures.



Boston, Museum of Fine Arts:
Niche for Statue.

whom the objects are made. The niche represents the decay of a magnificent artistic inspiration, a delight in and devotion to a certain abstract spirit of form—if we may so speak—once exuberant enough to cover all Europe with evidences of its fertility. It had its end shortly after, and the achievements which illustrate it in our time are sporadic resurrections.

The attempt to put into one phrase the abstract spirit of form that resides in everything Gothic leads us to an apparent anti-climax. We can say little more than that Gothic design was a cult of the right line and the acute angle combined. The Greeks and Egyptians had the right line, the Romans added the arch, and the Byzantines developed its curve into suave convolutions. The right line in combination with the acute angle entered European design in the pointed arch. The chilly north, from which it came, expressed itself in the rigidity of the line and the narrow proportions of the angle. Both give pungent impressions, the line by its suggestions of inexorability and infinitude, and the angle by its broken continuity. The immense fecundity of the two geometric ideas in combination is one of the marvels of the human spirit.

In the piece before us we see the impulse lapsing. Let us compare it with another that illustrates the impulse at its height. The corner niche containing the pedestal of the statuette once sheltered there embodies the narrow and high proportions that were born with the pointed arch (Pl. XX). It is octagonal in plan—that is, bounded by right lines—and the pilasters on either side are also regularly polygonal. The roof shows a close assemblage of straight, vertical edges, and in detail contains a series of openings called lancet windows from their sharp points. These points are curved as a lancet point might be; but in the panelling of the pinnacles between them, nearly straight lines meet in acute angles. The interior of the roof is vaulted to a keystone at the back in ribs which rise from the bases of the pinnacles. The spectator needs only to imagine the pinnacles based on slender columns repeating the side pilasters to find in the little compo-

sition a structure that, however magnified, would stand alone, as architecture should. The designer asks us to forgive the absence of these supports, on the ground that his design is such a little one; and we readily grant his request and appreciate its humor.

In the niche with figures (Pl. XIX), the architectural design seems to have melted down and broadened out, as if in flaccid hands. The canopy shows no vertical lines and hardly a sharp angle. The vaulting rises into round arches. It is impossible to complete it in fancy by any additions that would leave it structurally safe. The ornament above is rounded and wave-like. We are far away from the right line and the acute angle, and, in fact from any serious architecture. The composition has become a graceful play with vanishing impulses of the Gothic style.

In point of time, the Gothic style stands midway between two others whose latest years, as well as some of their best, are also represented here. The earlier of these is the Romanesque style of North Italy, connected with Byzantium through the exarchate of Ravenna, which represented the power of the Eastern Empire in Italy from Justinian's time around 550 until nearly that of Charlemagne, whose father, Pepin the Short, in 750 made the region a part of the States of the Church by the donation falsely attributed to Constantine. The single larger object in the room which shows its kinship with Byzantium is the seated figure of a prophet, a fragment and probably part of some large architectural composition produced in or near Ravenna in the twelfth century (Pl. XXI). The conventional staring stiffness of Byzantine figures, the complex severity of Byzantine decoration have in this sculptor found an exponent hardly capable of a vital grasp of the reasons that gave the art of the Byzantines its power. A not dissimilar external dependence upon Eastern tradition expressed in finer and more varied conventions is conspicuous in the extraordinary sculptures which the eleventh and twelfth centuries left behind them in churches of Southern France. In Italy the ingenuity and grandeur of fancy which were to make St.



Boston, Museum of Fine Arts: Enthroned Figure.



Boston, Museum of Fine Arts: Verdure Tapestry.

Mark's in Venice impressive had given place at the time and in the place that this figure was carved to something akin to helplessness. The value of the piece lies in its illustration of an important tradition in sculpture at first hand, however far below the tradition at its best.

The later style whose final stages are announced in pieces shown here is that of the Renaissance of the fifteenth to the seventeenth centuries. In such a tapestry as the Flemish "Verdure" of the later date, with its indifferent color, its undecipherable tumult of leafage, architectural forms, balconies, bridges, broken columns, and animals large and small, the *joie de vivre* new-born a century and a half before runs riot (Pl. XXII). Freedom from the straight-laced line and the agonized angle has become a license which leaves no food for attentive contemplation, however open-minded. It was in this guise that the Renaissance disappeared before the modern spirit.

These are the thoughts that Saint Sylvester's Day calls to mind in the museum gallery. The end of lives, the end of utilities, the end of artistic styles. Are there no other thoughts to lighten this atmosphere of farewell? Why is St. Sylvester's Day called his feast? Why do people nowadays make a festival of the last night of the year?

It is because we cannot think of an end without thinking also of a beginning. The burial-day of St. Sylvester was called his feast, like the festivals of all the other popes, by those who believed it his real birthday—the day he was born into the true life, the *vera vita*, as old inscriptions say. People meet tonight not only to see the old year out but to wish each other a happy new one—mounting on steps and seats according to the old custom to jump down and land well in the coming year.

Reversing in thought the pattern of words we have woven, as a weaver reverses his finished web, each of the endings we have dwelt upon reveals to us in its own way a beginning also.

The purpose of these works of art has by no means come wholly to an end. It has only entered upon a new fulfillment. The courtroom tapestry (Pl. XV) no longer dominates malefactors by its symbolism of force; its insignia of royalty no longer inspire faithful subjects with devotion to their king. But if we look deeply enough, the preservation of a disused work of art in a museum is truly its spiritual survival. The tapestry was made to be displayed, and is displayed as it was made to be. It is the aim of every artist to draw the eyes of spectators to his work and fill their minds with all that he has put there. This purpose is still fulfilled by every object shown here. All are still messages from their makers' hands to the eyes of other men. None ceased to perform this office when they were taken from their destined places. Indeed, they are installed here precisely in order to insure that they shall keep on revealing their makers to successive beholders for an indefinite future.

Again, if the church has been right in making a festival of St. Sylvester's burial-day, then these sepulchral marbles tell of more than the end of the lives they were made to commemorate. As the centuries have passed, these undistinguished men and women also have come to share in the great beginning Sylvester's pious fellow-churchmen believed was his.

Styles indeed come to an end. Man's imagination pursues first one type of charming fancy, then another. But it is itself eternal. The close of devotion to any one ideal marks the opening of service to some other; and signs of the springtime of each appear in the winter of its foregoer. The *joie de vivre* that blossomed in the Renaissance was already nascent in the age of Gothic. We can trace its furtive appearance in sculptures here gathered.

The Madonna and Child from Lorraine is a notable example (Pl. XXIII). What was happening in Europe in the fourteenth century when this group was carved, and in particular, what was happening in France? The question relates to the history of creation—the history of civilization so-called—a recital largely dependent

on the history of possession—political history so-called—and greatly overshadowed by it in our historical records.

The main facts about possession, that is, political history, can be quickly told. In all outlying Europe during the fourteenth century there was snatching back and forth of power between kings and lords spiritual and temporal. In the central countries, the Swiss achieved their struggle for liberty; the cities of North Germany formed a Hanseatic league to secure their bread and butter, and the Rhine cities another to save their skins against the noble robbers from the castles; in Italy the control of towns and provinces was shuffled from hand to hand, and during almost the whole century the pope was an exile in Southern France, where he built the great palace at Avignon. Finally, Northern France, the birthplace of our Madonna and Child, became the victim of the Hundred Years' War.

The history of creation—the history of civilization—during the fourteenth century has chiefly to do with England, France, and Italy. In Germany the minnesingers had gone, and the mastersingers had not yet established their schools. There were the mystics (Eckhardt, d. 1328), but no other great creative personalities. Amid dire political unrest, Germany was busy founding the universities that were to nurture and did nurture such personalities. In England, France, and Italy men's creative impulses defied the political struggles within and between those countries. The last of the schoolmen disappeared with William of Ockham (1270-1347); and the gap was filled by the achievement of Wiclif (1324-1384) in the translation that was to become the foundation of the English Bible. Chaucer (1340-1400) was a soldier of the Hundred Years' War in France and for a time a prisoner there. Froissart (1337-1400) was the chronicler of the war. In Italy modern European painting began with Cimabue (1240-1302) and Giotto (1276-1337); and with Niccolò Pisano (d. about 1284), modern European sculpture. Dante (1265-1321) closed the record of the Gothic Age by the *Divina Commedia*, and Boccaccio (1313-1375) in his stories offered the Renaissance a profane comedy instead. The family of

his friend Petrarch (1304-1374) migrated to Avignon with the pope. The life of the poet himself nearly spanned the century, and in his poetry the ice of the Gothic age can be seen breaking. Petrarch valued his Latin poems above his Italian verse; but the world remembers him as the lover of Laura, of her sequestered valley, and of the mountains that close it in. It is a like pioneer delight in natural beauty that has preserved to our day the verse of a French poet of the next century. The Spring Song of Charles d'Orléans (1391-1465)

*"Le temps a laissé son manteau
De vent, de froidure et de pluie"*

leads the van in the proud procession of French lyrical poetry. Across the Channel, an unknown poet had written long before

"Sumer is y-cumen in."

There is spring in the air. The Renaissance is already awake. The sculptors of Gothic churches had from the first chosen a spring plant as a motive of their floral capitals. The arum is cousin to the wake robin, and to that other plant with the unlovely name that spots with its brilliant green the browns and yellows of our own marshes in March. The drollery with which these sculptors filled out of the way spots in the solemn buildings they ornamented—a dragon with a knotted tail, or a birdman wrought to fill a medallion—are so many anticipations of the riotous delight in everything alive that overflowed long after in the pages of Rabelais.

Here in this group of the Virgin and Child spring is visible too (Pl. XXIII). These are no longer figures of immortal and unearthly build and attitude like those that look down from the doorways of Amiens and Chartres. The Virgin's face and figure are of portrait-like reality. She has the broad, rounded features, the ample proportions, and the easy grace of the heavy-laden women that passed and repassed before her as she stood in the Parish Church of St. Goéry at Epinal. The Child, too, holds in His hand neither the globe of dominion nor any other symbol of divinity, but another flower of the fields such as the Gothic sculptors had



Boston, Museum of Fine Arts: Madonna and Child.

twined in stone about the capitals above the pair. The end of the other-worldly age was already the beginning of its this-worldly successor. The Gothic spirit at its feast of St. Sylvester was already wishing a happy New Year to the spirit of the Renaissance.

The Technical Study and Physical Care of Paintings

by EDWARD W. FORBES

WE value human life, and rightly so, yet who among us would be hardy enough to state that the preservation of his life for a few years more or less would be of equal importance with the preservation of Michelangelo's frescoes in the Sistine Chapel? We are born to die; these frescoes are born to live. How many among us can bear as important a part in the civilization of the world, and can carry as rich a freight of inspiration to countless thousands of our fellow-men for generations to come, as Botticelli's *Primavera*, or one of Titian's masterpieces? I would not minimize the importance of preserving our own lives but would emphasize that of preserving the lives of our pictures. When we die, others will take our places; but what would replace Leonardo da Vinci's Last Supper or the paintings in the Uffizi, should they perish?

Why have we the privilege today of looking at the works of Giotto, Botticelli, and Bellini? It is because these masters learned their trades just as carpenters, masons, or gilders may do now. Moreover, they had the advantage of working in the guild system rather than in the trades union system. The guilds insisted that the public should be well served, that good materials should be used, and that the work should be honestly done; whereas our trades unions concentrate their supreme effort on seeing that the men are well paid, not that the public gets its money's worth. There is much to be said for the apprentice system. Let us hope that modern intelligence will some day apply itself to the problem of the production of great works of art. If careful study shows that certain mediaeval conditions tended to produce masterpieces, is it too much to hope that in the future we may, either unconsciously or consciously, work towards re-creating these same conditions or towards devising new ones equally effective?

Broadly speaking, the subject of this paper has three aspects: the study of the authenticity of the picture, which is highly important to the purchaser or to the cataloguer; the study of the physical condition and care of the picture, which is very necessary to the owner or to the curator; and finally the study of the soundest technical methods and materials, which is especially essential to the artist and to his manufacturer.

The first division of the subject involves the complicated problem of determining whether a picture is genuine and whether it is valuable. Technical investigation is, of course, only one of the many lines of approach. Historical and iconographical knowledge, wide experience, intimate acquaintance with the works of the great masters, and, above all, that subtle sort of sixth sense known as the *flair* are the usual means of determining what a picture is. Through technical knowledge, however, a great deal of useful evidence may be obtained. This knowledge is serviceable, to be sure, only up to a certain point. We know, for instance, what woods were commonly used for panels, but a Madonna on a mahogany panel or on canvas is not necessarily modern, for it may have been transferred from its original poplar panel. We know what pigments were used in the various periods. This may prove to be valuable testimony, but it is not an infallible test. Certain colors can be determined without removal from the picture by the use of a microscope that magnifies to one hundred diameters. Other colors are harder to verify, and it is necessary to take a grain, smaller than a pin head, from the picture by means of a hypodermic needle. I have never done this, but Professor Laurie describes the process in his book. The owner of a picture would often refuse to allow even this tiny speck to be taken, but it is sometimes possible to find an unimportant part of the drapery under the frame, where the removal of a bit will do no damage. Genuine ultramarine and azurite, the principal blues used by the early Italians, can be recognized and distinguished from cobalt and artificial ultramarine, which have been used since 1830. But here again, the problem is complicated by the fact that a

given blue drapery in an old picture may have been repainted with modern blue or a clever deceiver may have used the old color in his forgery. Among other significant details are the peculiar cracks produced by various kinds of grounds, pigments, media, and varnishes; the brush work used in tempera, as opposed to that in oil painting; the different kinds of under-painting practiced by the old masters; and the different systems of glazing.

There is, of course, one objection to teaching the secrets of the old masters too widely. Is it not possible that the forgers will avail themselves of this information more readily than the scholars and critics, just as the wide publication of ingenious new crimes in the papers may merely add to the *répertoire* of the criminals and probably will help little toward putting the public on its guard? Yet the most accomplished forgers have much of this information already; and, in spite of the danger of helping them further, I feel that it is sound to publish the truth and to trust that the forgers will overreach themselves somewhere, and that the great body of technically trained students and painters will grow and grow, and may finally constitute such a weight of enlightened opinion that the clever but shallow mentality of the forger will be unable to keep up with the advance of knowledge. In these days, when an authentic painting by Raphael may be worth more than \$500,000, and a forged painting like Raphael less than \$500, it is of no small consequence to the purchaser, particularly if he is a museum official spending public money, to know whether a given picture is genuine or not. Unfortunately, as we learn more, our enemy the forger learns more also, just as one group of men invent heavier cannon to pierce the defenses and another group improve the defenses to guard against the cannon.

It is unnecessary here to speak of the literature on our subject. The more important books are too well known to need comment, but there are many minor books which might well repay the research of some student—books of recipes and of secrets concerning the

mysteries of alchemy. It is still possible to find material which has not been unearthed by Eastlake, Mrs. Merrifield, Laurie, or any of the other investigators, and thus to clear up disputed points. At the Fogg Museum are a number of rare books relating to the technique of painting, and more are being collected.

At the present time a great deal might be done by experimenting with the materials used by the mediaeval painters. By means of this we may hope to find eventually some forgotten secrets which will enable us to take better care of our old pictures and to produce more durable new ones.

The second division of our subject concerns the care of paintings. The American public is under a heavy responsibility. An immense number of very valuable paintings have poured into America during the last twenty years and millions of dollars' worth are coming in every year. These pictures are often bought by successful bankers and manufacturers who have had no experience in the care of pictures and who place them in their steam-heated houses. On the whole, the panels are in greater danger than the canvases. During the summer, when the humidity of the air frequently goes up to eighty degrees or more, the panels swell, as do our doors which refuse to shut in the summer. In the winter, when our furnaces are lighted and the humidity sinks often to thirty degrees, the panels shrink as they dry, just as our throats become dried and subject to the colds that attack us through the winter. The gesso surface which holds the pigment does not swell and shrink as much as the wood does; hence it gradually works loose and peels off. Not only panel paintings, but also valuable furniture, stucco reliefs, wood carvings, and other objects of art suffer in a like manner. It is said that no such low humidity as this ever exists even in the Sahara. In general the atmospheric conditions of this country are much worse for panels than are those of Europe.

Canvas, on the other hand, is exposed to its own set of dangers, in some ways greater, in some ways less, than those which menace panels. It seems to me that, if

through the greater wealth of this country we take advantage of the unfortunate conditions in Europe during the coming years and buy a large number of important paintings which do not already permanently belong to public museums, and if we then fail to take adequate care of them, we shall commit a serious crime against civilization. The obvious first steps are to avoid most of our difficulties by maintaining proper humidity in our houses and museums (a move which will be just as beneficial to us as it is to our pictures) and to guard against excessive heat and cold, noxious gases, dirt, flies, and physical injury of various sorts. It is difficult to keep atmospheric conditions constant; in the Fogg Museum we have suffered many trials with pictures because we cannot afford the expensive humidifying plant that is necessary to produce proper conditions, and, in fact, no special effort has been made to secure money for this purpose for we are in an outgrown museum and hope soon to have a better building.

The life of a picture depends partly upon the city in which it is. Mr. Toch points out in his book that the acid gases which are produced by the burning of coal, notably of soft coal, are very injurious to certain pigments. Thus, the Pittsburgh collectors, for instance, who buy valuable pictures which are painted with those pigments have to be particularly careful.

The question of whether glass should be put in front of a picture is a troublesome one. Glass does, indeed, ward off some ills as far as the surface of the picture is concerned. But if the front of the painting which is already protected with a varnish has the additional protection of glass, then the back also should be protected from moisture. Sir Arthur Church calls attention to the fact that the back of the paper on which water colors and drawings are executed should on no account be in contact with any kind of wood. Of course, it is well known how disastrous the exposure to sunlight has proved in the case of water colors by Turner and others. If oil paintings are in too dark a place they suffer from one set of ailments; if they are in too light a place they suffer from another set, especially

from certain so-called chemical rays that come from the sun. Sir William Abney devised for the Victoria and Albert Museum at South Kensington an arrangement of colored glass of peacock blue and yellow, which excluded certain injurious rays. In England museum officials have tried the experiment of covering the walls of the museum with white lead in a tempera medium of starch water. The walls so prepared absorb the various sulphurous acids that penetrate into the building. The pictures, which are less susceptible than the walls, partly because of their varnish, thus escape almost entirely the effects of these dangerous chemicals in the air. As Professor Ostwald points out, one of the troubles with oil paintings is that the process of oxidation does not stop. "Every oil painting is in a process of continual change and this change takes place with a varying velocity depending on the nature of the pigment which is mixed with the oil. This is the cause of the numberless diseases to which oil paintings are subject." So it is a mistake to believe that there are only one or two kinds of trouble that afflict pictures. There are many; and it is important that the restorer should diagnose the difficulty correctly. If a picture does begin to go to pieces we have to go to the professional restorer. It is most dangerous and improper for any amateur to try to repair or restore a picture.

The choice of the restorer is one of the most difficult problems for the owner of pictures. There are many commercial restorers in this country. They are men who are all too often trained to believe that the ideal of restoration is to make the picture look as if it had never suffered. The more skillful and more conscientious ones content themselves with securing what is left of the old picture and with touching in the parts of the surfaces that are actually damaged; but there are others who fail to match the tint exactly and who find that the easiest way is to carry their colour over the original surface, rather than to try any longer to match the subtle tint used by the master. In such cases they usually conceal their repainting by a heavy coat of varnish which gives the picture a glossy surface, most pleasing

to those who know the least. This varnish may last for fifty or one hundred years. When its term of life draws to an end it turns dark and then it is removed by the restorer of that day. With the varnish, often some of the repaint, and probably some of the original paint, comes off. The picture is made "as good as new" again and lasts another fifty years or so. We can easily see how after three or four centuries of such treatment many pictures that were once by Rembrandt or Titian may have nearly forfeited that title, particularly as the delicate glazes and scumbles, on which the masters depended for the final effect, are pretty sure to go at the first restoration. Picture restorers usually guard their secrets with jealous care. They have some reason for so doing: it is all too easy for young workmen to learn a smattering of the necessary recipes from their master and then to practice their half-baked knowledge and lack of skill on valuable pictures. The state prevents a first year medical student from trying to perform an operation for appendicitis, but there is nothing to stop the youthful picture restorer from practicing on Holbeins and Titians if he is plausible and persuasive enough to induce some ill-informed owner to let him treat the picture. We have to choose our restorers as we choose our doctors. But it is easier to judge the success of the doctors. The picture may appear to be cured, and the fact may not develop for twenty-five years that it was not saved but ruined. Bad restoring is often worse than nothing; good restoring may easily save a doomed painting from complete wreck and give it a new lease of life. The restorer artist who cannot refrain from repainting is in the same position as a doctor who might discover the secret of prolonging our lives by substituting new parts as the old ones wear out. The patients of such a doctor would have the alternative of living on with a motley assortment of eyes, ears, noses, arms, and legs, or of living their natural lives and finally sinking into their respectable and individual graves. I fear that we are a long way from state control of such matters, but the steps leading in the right direction are

for all owners of pictures and museum officials to make it their duty to acquire at least an elementary knowledge of this difficult subject.

The third division of our subject deals with the technique of painting from the standpoint of present work. In order to create today pictures that will last we should be familiar with the enduring and with the unenduring pictures of the past and of the present. This field of study includes the questions of materials, whether wood, plaster, canvas, or copper; of grounds, on which the paint is to be placed; of pigments and media, and the methods of laying them on the surface; and, last and far more difficult than all the rest, of varnishes.

There is something to be said for each material. Vellum, ivory, and well made paper are excellent for illuminations, miniatures, drawings, and water colors. Copper has certain advantages for oil and tempera paintings, provided the paint can be made to adhere—a feat which has often been accomplished. Wood, such as well seasoned mahogany, is probably the best of all. Canvas, which offers many advantages, entails corresponding difficulties. Oil tends to make the canvas rot, hence a coat of priming must be put between the oil and the canvas. This coat of priming is commonly prepared and put on by a commercial concern that is in the business to make money. The artist does not know what cheap or inferior materials may have been employed for this purpose, whether it is chemically pure, or how it will affect the particular pigments which he uses. One difficulty is that if we use for the priming of either a panel or a canvas a substance like casein, which the water cannot penetrate, it is too hard and brittle, and if we mix in glycerine to soften it and make it elastic, we introduce a highly hygroscopic element, which is undesirable. Professor Ostwald recommends pasteboard with casein and perhaps linen over it, in place of canvas; others say that the pasteboard may contain injurious chemicals and that casein is dangerous. Many modern chemists have made careful studies of the durability of pigments. The artist can buy such a book as Church's *Chemistry of Paints and Painting* and inform

himself as to what pigments are sound. There is, however, a curious lack of consistency between the experiments of the various authorities. Some say that a given color is permanent, and others, that it is not. So in regard to these disputed points we can only trust that still more authorities will make similar studies and that eventually a conclusive consensus of opinion will be reached.

Provided that the ground is good and the pigment is good, the problem of the medium need not be very difficult. The water colors and oils prepared by the most reputable firms are usually trustworthy. When experiments are made in tempera they had better be done with some established and well tried formula, such as the yolk of egg, which is known to have lasted for centuries. If some new medium is tried, it ought to be well understood and known to be chemically sound. The question of whether a varnish medium may be used opens up a very complicated problem involving the study of the famous Van Eyck medium, which is thought to have been an emulsion. In this short space I cannot go into the question further than to say that if a varnish medium is to be used, it must be exactly right, for when we approach the problem of varnishes and of the nature and use of these fascinating resins, we are on dangerous ground. Like fire and water, they are both the preserver and friend and the destroyer and enemy. If a picture is not varnished, it is exposed to one set of dangers; if it is varnished, it is exposed to another and perhaps worse set.

There are many different kinds of resins, and the problem is much complicated by the infinite number of possible combinations and mixtures. As is well known, the principal resins are amber, copal, sandarac, and mastic. There are a great many different kinds of copal. The vagueness of the mediaeval terminology is a source of much difficulty. When mediaeval writers mention amber or sandarac, we are not sure that they are talking of the same resins as those we know by the names. When it is remembered that the early masters made various mixtures of resins with balsams, such as

Venice turpentine, and with oils such as linseed oil or nut oil, it will readily be seen that our difficulties do not decrease.

Varnish can safely be used by the master, but the ignorant should beware of playing with fire. It is possible for a competent restorer to varnish a picture in such a way that the risk will be slight. Perhaps the greatest among the many dangers is that the varnish will eat down into the pigment; and then, when fifty or one hundred years later the varnish is removed, a large part of the original paint will be removed also. There are various possible ways to avoid this difficulty. Professor Ostwald suggests putting between the paint and the varnish a layer of a transparent substance composed of a solution of celluloid which contains different properties from its neighbors. Thus when the varnish turns brown and opaque at the end of its life, the solvent which removes it will leave the celluloid and, of course, the paint below untouched.

I hope that some day a technical school may be established, perhaps at Harvard, where the painters, restorers, and museum officials may learn about the chemistry of paintings and the care of them, on strictly scientific principles. We cannot expect every artist to prepare his own panels and grind his own colors. We do not all know how to inspect the milk and the water supply. But we all want good milk and water. I think it might be possible for the artists to form some sort of a national guild. The guild would employ professional men to examine the pigments and canvases produced by various firms. Then, those who were particular could insist on using certified materials. There are pictures painted a few years ago by famous living artists which are already going to pieces. When we pay five thousand dollars for the portrait of a member of our family we want it to last for a few years at least. I hope that when it becomes apparent to the public that our artists are often ignorant and careless about these matters and that our picture collectors and museum officials are not always perfectly informed about the care of pictures, the de-

mand for this study will grow. Please do not think, however, that I believe the technique is an end in itself. It can interest us for a moment while we look at the great work of art, and then we can forget the means and look beyond. George Herbert said:

“A man that looks on glass

On it may stay his eye;

Or if he pleaseth through it pass

And then the heaven espy.”

Schools, Colleges, and the Industrial Arts

by RICHARD F. BACH

MY major premise is that America must lead the world in industrial arts—this means not only in materials and execution, but in imaginative design as well. Materials we have in quantity, execution our skill has mastered, but design—there lies the present obstacle in the way of our leadership. That obstacle is the lack of schools of industrial art and more than that it is also the lack of any study of industrial arts, theoretical or practical, in general schools. We have made sporadic efforts at vocational instruction, producing the skilled mechanic but not the technician in design. We have also made untold efforts in the direction of teaching drawing—unequal combat with ingenious instruments and materials, as it has been called. In fact, in all the states of the union the secondary schools teach drawing; in all the states but one the elementary schools teach drawing. Little by little this instruction has been given a practical trend, in subjects chosen, in a gradual approximation to design rather than meaningless representation, in a reluctant leaning toward the occasional execution of a design. There are, of course, exceptional cases of schools that really give opportunities in the industrial arts or that infuse a distinct element of design into the hard-riden hobby of vocational study or manual training—too often manual at the expense of mental. But on the whole the industrial arts have not by any means been given their just deserts in either general or special schools.

Of special schools we have a baker's dozen, or, generously, we may say eighteen; that is about one for each six millions of our population. Even if we had a special school for each sixty thousand we would still fail of our goal for a generation to come; for these schools would have to make good many decades of neglect on the part of American producers, they

would have to fight an uphill battle against the increasing strength of Europe which is established in the field and stands ready to sell talent for dollars. These special schools would still be for the specialized practitioners, for the designers. They would in a practical way have their influence on all of us, because they would improve the character of objects available in the shops. Yet beyond this there is still the enormous territory of public taste, the training of which must be accomplished by a shorter road than any yet mentioned. Thus, the solution must be found partly in the schools we have, not left entirely for those we have yet to establish—and among those that we have I include the colleges as well. Leadership will not come to America until the people generally have attained a higher appreciation of industrial art, for only then can they express an intelligent demand for good design. This demand is a prerequisite since it represents a foundation upon which to build up educational principles in the teaching of the industrial arts.

But there are several other factors to be considered in this struggle for American leadership in industrial arts production. First is our abuse of the machine, a willing but highly complicated tool, which has developed so far as to become a sort of Juggernaut. Now it is the master, and designs must conform to its requirements. Without the machine we shall never get anywhere, for it brings objects of industrial art within reach of every purse; yet *with* the machine we shall get no further unless we realize its limitations, and, above all, the fact that it is an unthinking mechanism devised to help production, not to control it. Mass production is the fetish of the age, but mass production in terms of poor design means conspiracy against the public taste. Circumstances seem to compel certain conspiracies. In this case the manufacturer—user of the machine—makes only what he can sell, and he sells only to the middle man—abettor of the machine—who stands between the maker and the ultimate consumer. The distributor holds the key to American taste in industrial arts at this time. Until schools train the

public to defy his judgment, he will continue to provide garish colors and obnoxious carvings because they are "fancy" and can be offered at a margin of profit more to his liking. An excellent way out of this difficulty is seen in the facetious suggestion to imprison every such dealer for the period of a thorough course of training in that discrimination many times exercised which we have learned to call taste. Something as drastic as that seems to be necessary unless we are willing to let him run amuck.

The manufacturer and distributor are harnessed to the machine but neither is compelled to pull the traces taut as is the designer. The designer now is offered no training comparable with the meanest schooling such workers can obtain abroad. There is no apprentice system to take its place. There is only a haphazard buffeting about in factory and office and so-called designing rooms until by dint of hard knocks the bare facts are learned. The distributor has set himself up as the unquestioned arbiter of "what the public wants"—a slogan as hard to define as beauty itself and surely with no real significance that any serious student has been able to detect. The manufacturer must make what this arbiter will buy and the purchaser has no alternative but to select from the distributor's stock on hand. Thus the vicious circle is complete and the grinding of the wheels carries the designer into the routine of machinery, speed, elimination of expensive characteristics of style, reduction of virile manifestations of the life of other days to the merest superficial ear-marks on ordinary box construction, etc., a routine which is as relentless a maelstrom as modern life has been able to create for any type of human activity. Until the initial point of view is changed on the basis of a sound training for the designer his part in the process of production must be relegated to the category of uncertain expenditures called "overhead—miscellaneous."

In a sense democracy demands mass output; it requires the greatest benefits for the greatest number. The machine offers such benefits, but it must be cor-

rectly used. By itself it is capable of no intentional wrong. Improvement in public appreciation will raise the standard of demand; improvement in training designers will raise the standard of response to that demand. The distributor will soon feel the pulse of the times and require a better product. The manufacturer stands ready now to make all possible improvements, if the product will sell.

There is thus a twofold task involved, half for the special schools, of which we have a few and for the rapid increase in which we devoutly pray, half for the general educational system from the beginnings through the college. The first is a work not within our territory here, a work which should be done or at least controlled by those directly engaged in the field of production. The second is assuredly our province.

Drawing in the schools has been mentioned. Let us use it for what it is worth, but let us incorporate it in a general scheme of training in appreciation of facts rather than of mere paper execution. Industrial arts constitute our home environment, the background for the development of the nation's children. Does not this deserve early attention as a subject about which everyone should know? The real taste of this great land must appear finally in the homes, and a high average in the humble dwelling interior carries with it a significance greater than splendor in the palace. Public taste in home furnishings is a leading factor in national culture; it is a factor in contentment and peace, therefore, also in production, and so in prosperity. We prate too much of fine arts, with capital letters. One day our very students will force us to define them anew. Paintings, always paintings, or sculpture, or other expensive things: is it bolshevism to say that they should be taught last and home furnishings first? What of furniture, curtains, rugs, tea cups, lighting fixtures (and, save the mark, what of apartment house mantels, brass beds, "parlor stoves," and their ilk)?

How many of us teach the history of painting, of sculpture, the history of something or other that is excessively intellectual, usually the product of past autocracies, always difficult to appreciate for the man in

the street because it represents an outlay that history tells him only misuse of public funds and suppression of personal liberty could make possible. How many of us define the stately march of styles that are dead with never a suggestion as to why they once lived. Meanwhile what is happening in American homes, the homes of here and now? How many of us give one lecture a year on art in the home, the art that helps to foster Americanism as paintings and sculpture alone never can.

Schools and colleges are agencies for teaching us how to live and work, but primarily how to live. Is appreciation of home environment such a far-fetched thing to teach children or to impress on college men and women? Colleges should not be above helping to make citizens, and the teaching of politics and economics is not the whole of this task. I plead for the industrial arts in schools and colleges; they are the arts we all live with, the arts we can afford to buy and are obliged to buy; they are the arts the design of which counts in daily existence next only to food and shelter and physical comfort, of which latter they really form part.

It is unquestionably our duty—and this applies to all members of art departments in colleges—to encourage teaching along these lines, not to make everybody a designer but to give everybody an appreciation of design. This great country now has no industrial art. America will bend her neck again to Europe unless we all help to prevent that calamity. Made in Germany was an expensive phrase before the war; but made in Japan, made in France, made anywhere else is much more expensive now that the war is over.

We devote ourselves to making life worth living. Are we doing our utmost when we teach only those elevated subjects which most of our students can never enjoy without going to the museum and when we neglect those phases of art which are with us at our meals and in our rooms and which we must touch and use every moment of our days?

Let us follow the modern philosopher who says: take life where you find it, but don't leave it there!

REVIEWS

A HISTORY OF ARCHITECTURE. By FISKE KIMBALL and GEORGE HAROLD EDGELL. Octavo. Pp. xxiii, 621. Illustrated. Harper and Brothers, New York and London, 1918, \$2.00.

THIS is the first of Harper's new Fine Arts Series, similar histories of sculpture and painting being still in preparation. These books are being prepared not only with reference to class use in colleges but they also provide authoritative, comprehensive, and interesting histories for the general reader. The History of Architecture argues well for the whole series, for it is an admirable and very practical book, well illustrated with more than three hundred good architectural views and plans, a few of which unfortunately are blurred. It is certainly the best short account in a single small volume of the whole history of architecture from prehistoric to modern times. Professor Kimball writes the chapters on Prehistoric, Preclassical, Greek, Roman, Renaissance, Post-Renaissance, Modern, American, and Eastern architecture; Professor Edgell the chapters on Early Christian, Byzantine, Romanesque, and Gothic. The book in general is unusually free from the errors of fact which characterize most such books. The restoration on p. 43 of the triangular space above the doorway in the "treasury of Atreus" with a column or altar flanked by two lions (rather lionesses) is improbable and lacks any evidence. I have seen no second edition of Tsountas and Manatt's *Mycenaean Age* (1916) which is cited as a standard work (p. 48). There is no evidence for terraced seats in the Greek covered assembly-hall at Megalopolis. Often, as here, where the *Thersilium* is meant, the language is vague and too brief, degenerating in some cases into a mere list of names. It would have been better to omit such material altogether and give more space to important buildings. The Doric column rests directly on the stylobate, and the Doric temple almost always has at least three (not one) steps (p. 58). The illustration on p. 59 should

show six guttae on the mutules and regulae. It is incorrect to say that the Ionic frieze was first introduced into the entablature by the Athenian architects of the time of Pericles (p. 66), for it occurs much earlier in the Cnidian treasury at Delphi. In discussing the Corinthian capital, it might have been profitable to make use of Homolle's article on the subject in the *Revue Archéologique*, IV, 1916, pp. 17f., and it is much more likely that the Corinthian columns of the Olympieum still standing date from Hadrian's time than from the second cent. B. C. The stalks separating the spirals at the centre of the abacus are a feature which does not occur before Augustus and then rarely. The treatment of the human figure as an architectural support in five lines (p. 69) is very unsatisfactory (cf. *Art and Archaeology*, II, 1915, pp. 1f. and Homolle, in *Revue Archéologique* V, 1917, pp. 1f). The Argive Heraeum should be mentioned as one of the oldest temples in Greece, and the Heraeum at Olympia dates two or three centuries before 700 B. C. in its original form. It is too bad that a good book like this says (p. 91) that the theatre at Athens had room for 30,000 spectators (it would hold 17,000 at most) and that the one at Megalopolis which would seat about 17,000, had room for 44,000. The *proskenion* is defined (p. 89) as a platform before the *skene*, on which certain of the actors or all of them made their appearance, but the acting was surely on the ground of the orchestra. Seats of stone existed in the stadium at Athens (p. 92) long before Roman days and on p. 56 it is stated that by the time of Alexander the stadium (it is not apparent what stadium) was lined with stone. There was an older Parthenon than that dating 490-489 (p. 99), and the temple of Olympian Zeus was not begun as early as 530. On p. 102, it would be well to include Choisy's *Histoire de l'architecture* and Penrose's *Principles of Athenian Architecture*. It would be much better to refer to Dörpfeld's book on the theatre or to Flickinger than to Fiechter, and we miss the names of several good handbooks on Greek architecture such as Sturgis' *History of Architecture*, Vol. 1. P. 538, Christ Church

in Philadelphia is dated 1731-44 but p. 566 the date is 1727-44. Several other such small slips might be pointed out. It is impossible to cover so enormous a field without minor errors, and this book is unusually practical and accurate.

David M. Robinson.

A HANDBOOK OF GREEK VASE PAINTING. By MARY A. B. HERFORD. Octavo. Pp. xxii, 125. 21 figs. 11 plates. Manchester University Press, and Longmans, Green & Co., New York, 1919, \$3.75.

THERE has long been a need for a short history of Greek vases, such as Buschor's good little book in German. Walters' two volumes are too long and contain much that is irrelevant, and other books are devoted to special fields. Miss Herford's excellent, though expensive, book tries to fill this need and does so in many respects. It is, however, hardly a useful handbook of the subject for the beginner or non-specialist for whom it is written. Many will still turn for a brief treatment to the valuable survey of the whole field by the late Professor J. R. Wheeler in Fowler-Wheeler's *Handbook of Greek Archaeology*. Nearly as many pages are there given to the subject. The arrangement of the material is better and emphasis is laid by Professor Wheeler on the historical and artistic side which is rather neglected by Miss Herford. Miss Herford's book is valuable because it is the first general handbook to take account of Beazley's countless attributions of vases to new artists, because of several new and unusual illustrations, and because it gives prominence to questions of technique. She has not even confined her remarks on technique to part I, which takes up considerably more than one third of the book, and which discusses clearly and well the Greek potter and his craft, vase shapes (with some omissions), the uses of vases, etc. Part II, called the historical part and consisting of four chapters, on the early wares, the black-figure style, the Attic red-figure style and white-ground vases, and vase-painting in Italy under Attic influence, gives one no clear idea of historical or

artistic development because the treatment is too brief, because there are only a few plates and those crowded with too many illustrations, and because the narrative is frequently broken by technical discussions. This is especially true of chapter VI.

The vase illustrated in the frontispiece is said (p. XV) to be in the Forman collection at Boston. It was formerly in the Forman collection and is now at Boston. Such spellings as necropoles (p. 4) and apotropaeic (p. 14) are objectionable. P. 5, pl. 1c, it would be very useful in the case of vases illustrated to refer to the publications, so in this particular case to Furtwängler-Reichhold, *Griechische Vasenmalerei*, pl. 17, 18, so on pl. 2 to *Arch. Zeitung*, 1881, pl. 10, 13. P. 10, we hear suddenly of Milesian ware (cf. also pp. 37, 40, 55) and of proto-Corinthian (pp. 10, 41) without any explanation of the terms, and on p. 17 we are told that the ware formerly known as "Rhodian" was perhaps not made at Miletus. P. 27, just as a reference is given for Nolan amphoras to *Am. J. Arch.* 1917 (it should be 1916), so for the hydria one might be referred to Miss Fölzer's excellent monograph on the hydria. Plate 1 (b) should be 1 (e), and there is no certainty that Euthymides introduced this kind of hydria since Hoppin and others say that this vase is not by Euthymides. P. 37, the cantharus is not limited to black-figure ware and occurs fairly often in red-figure ware and with painted design. P. 40, the name of the archon occurs on Panathenaic vases before 367, and later than 313 (p. 73). I published one (*Am. J. Arch.* XIV, 1910, pp. 422 f. and XV, 1911, pp. 504f), now in Oxford, with the name of Asteius who was archon in 373 B. C., and from Eretria came a fragment with the name of Polemon (312-11). P. 40, Miss Herford thinks that some of the Graeco-Italian vases were used as decorations for rooms and that the reverse side with its poorer design stood out of sight. But perhaps one side was a copy of a good Greek design and the other a native piece of work. P. 42, among miniature vases used as toys should be mentioned the several miniature Panathenaic vases. In discussing the uses of vases it

might be useful to state that, even if many of the vases leak or sweat, that would keep the liquid inside cooler, and is no argument against their use. To-day in Greece where there is little ice such porous vases are used to keep water cool. P. 53, there is not so much connection between proto-Corinthian and Corinthian-ware as Miss Herford suggests. There is practically no relation and some proto-Corinthian vases are contemporary with the Corinthian ware which did include some beautifully painted vases such as the Amphiaras crater in Berlin. P. 54, only four lines are given to Melian vases and nothing is said of the many vases with similar designs found on Delos, so many that several scholars prefer the term Delian to Melian. Little attention is given to the important Thera, Chalcidian, "Tyrrhenian," vases. P. 55, it is improbable that the term Milesian is any more correct than Rhodian, since this ware has been found in very small quantities in the German excavations at Miletus. In fact, once on p. 57 Miss Herford herself uses the term Rhodian. P. 56, why speak here (also p. 59) of Cyrenaic and elsewhere (pl. 2 for example) of Laconian ware for the same vases. P. 57, the Fikellura or Samian ware, as some would call it, has many slender fairly tall amphoras as well as the squat neck-amphoras. A complete specimen has even been found at Corinth, showing that the ware was not limited to Rhodes, Samos, and Daphnae. It can hardly be Clazomenaeon, as Miss Herford suggests. P. 58, how would any reader know what the Northampton vases are? The treatment of Caeretan hydriae is unsatisfactory. The hydria referred to and illustrated on pl. 2 b as Caeretan is Cyrenaic and so published in *Arch. Zeit.* 1881, pl. X, and in Perrot, *Histoire de l'Art*, IX, p. 505. Miss Herford gives no conception of the caricature and burlesque characteristics of the style. P. 62, it is said that the black-figure style was first brought into prominence at Corinth but some of the early Attic or proto-Attic vases such as the Nessus vase in the Metropolitan, not to mention the geometric and Vourva vases, are as early. P. 65, most archaeologists do not consider that

the Francois vase gives a faithful picture of the Well-house at Athens. P. 72, it is not true that all the vases of Nicasthenes have his sign scratched under the foot. P. 82, the Theseus cylix in the Louvre cannot be an echo of Bacchylides as it dates before his time. Cf. Furtwängler-Reichhold, *Griechische Vasenmalerei I*, pp. 28f. P. 88, the Greek words '*áskros* and *mauros*' should be *áspros* and *maûros*. Pp. 87, 90, the famous Akataeon krater is in Boston, not New York. On pl. 8 (a) the illustration of Macron's cotyle in Boston is so poor that the lower half of the scenes is absolutely black. There is no reference to the publication in Furtwängler-Reichhold, pl. 85. On pl. 9 c, read neck-amphora for the impossible Twisted amphora, and on pl. 10c Meletos master for Maenad master. P. 103, it is hardly true that in the fourth century vases from Kertch and the Cyrenaica polychromy carried all before it, since on many specimens the color is only an accessory. Pl. 11, p. 107, the famous Attic Pronomus vase is called Apulian and Median printed for Meidian. P. 108, most scholars follow Patroni in thinking that the Campanian vases have a closer affinity than Lucanian with Attic vases. P. 111, Posidonia is not the Roman but earlier Greek name of Paestum, and p. 112, Rhinton of Taras should be Rhinthon of Tarentum.

Despite such and other small defects and the bad arrangement of material, the book because of its knowledge of Beazley's work and of Greek vases in general, will prove very interesting and useful and suggestive to one who already has an elementary acquaintance with Greek vases.

David M. Robinson.

NOTES

PROGRAM OF THE

NINTH ANNUAL MEETING

OF THE

COLLEGE ART ASSOCIATION OF AMERICA.

CLEVELAND MUSEUM OF ART,

Cleveland, Ohio.

THURSDAY, FRIDAY, SATURDAY, APRIL 1, 2, and 3,
NINETEEN HUNDRED AND TWENTY.

THURSDAY, APRIL 1, 11:00 A. M.

HOTEL EUCLID

Meeting of the Board of Directors and of the various committees
2 P. M.

CLEVELAND MUSEUM OF ART

Address of Welcome .. CHARLES F. THWING,
President of Western Reserve University

Address of Welcome .. FREDERIC WHITING,
Director of the Cleveland Museum of Art

REPORTS OF COMMITTEES:

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Research Work and Graduate Teaching in

Art A. V. CHURCHILL, *Smith College*
Exhibitions GEORGE B. ZUG, *Dartmouth College*
Publicity GEORGE B. ZUG, *Dartmouth College*

- Designing in Three Dimensions MARY J. BRISON, *Ohio University*
 The Importance of Instruction in the Technique
 of Painting and the Physical Care of
 Pictures EDWARD W. FORBES, *Fogg Art Museum*
 Materials for Teaching the History of Oriental
 Art CHARLES F. KELLEY, *Ohio State University*
 A Russian Nineteenth Century Painter:
 Elyas Repin LOUIS E. LORD, *Oberlin College*
 Modern Dutch Art ARTHUR EDWIN BYE, *Bryn Mawr College*
 Roumanian Art and Architecture ... CHARLES UPSON CLARK, *New York*

7 P. M.

CLEVELAND MUSEUM OF ART

- Dinner, followed by a "Round Table" Discussion of *Industrial Art*
 A National Program of Industrial Art
 Education CHARLES A. BENNETT, *Peoria, Ill.*
 Industrial Arts versus Fine Arts in the
 Colleges R. F. BACH, *Metropolitan Museum*
 Conditions Governing Artistic Production
 at the Present Day and in Earlier
 Times ARTHUR POPE, *Harvard University*

FRIDAY, APRIL 2, 9:30 A. M.

OBERLIN ART MUSEUM

- A Century of Art in
 Missouri JOHN S. ANKENEX, *University of Missouri*
 The Missouri State Capitol .. JOHN PICKARD, *University of Missouri*
 The Art Collections at Toledo .. BLAKE-MORE GODWIN, *Toledo Museum*
 Luncheon at the Faculty Club of Oberlin College

1 P. M.

- Inspection of the Oberlin Art Museum, under the Guidance of Pro-
 fessor Clarence Ward

8 P. M.

- Joint Meeting with the Classical Association of the Middle West and
 South
 The *Bacchae* of Euripides—An Interpretation DOROTHEA SPINNEY

SATURDAY, APRIL 3, 9:00 A. M.

- Visit to the Private Collection of Mr. E. S. Burke

9:30 A. M.

CLEVELAND MUSEUM OF ART

- University Extension Art
 Work JEANNETTE SCOTT, *Syracuse University*

The Arts in a

Democracy..P. P. CLAXTON, *Bureau of Education, Washington, D. C.*

J. Alden Weir.....DUNCAN PHILLIPS, *Washington, D. C.*

Can the American People be Given a Fundamental Appreciation

of Art? ..ELIZABETH KELLOGG, *Cincinnati Museum Association*

Inspection of the Collections in the Cleveland Museum, under the Guidance of Mr. Milliken, Mr. McLean, Miss Underhill, and others

1 P. M.

Luncheon at the Museum Resturant, to be followed by a short "Round Table" Discussion on "How Shall We Save the Humanities?" with Especial Reference to the History of Art. The question will be introduced by

HOLMES SMITH, *Washington University, St. Louis*

Relationship in Art between the School and

University MARY ROGERS, *New York Training School for Teachers*

A Solid Foundation for Courses in the History of the

Arts HENRY T. BAILEY, *Cleveland School of Art*

Educational Work of the Toledo

Museum ELIZABETH JANE MERRILL, *Toledo Museum*

The Duty of the College to

Art HERMAN N. MATZEN, *The Cleveland School of Art*

Business Meeting and Election of Officers

Visit to the Private Collection of Mr. Ralph T. King

The Art Bulletin

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of America

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COLLEGE ART ASSOCIATION OF AMERICA,
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WASHINGTON, NATIONAL GALLERY: THE GENTLEWOMAN, BY J. ALDEN
WEIR.

J. Alden Weir

by DUNCAN PHILLIPS

It was only four months ago that Weir "went West," but within that time the best critical opinion, in his own country at least, has crystalized rapidly and acclaimed him with a remarkable degree of confidence as a man for the ages, as one who now enters upon a splendid destiny of imperishable and ever increasing fame. I do not feel certain that Weir will ever be one of the popular painters who are appraised at or above their real value by the general public. He never carried his heart on his sleeve, never painted pictures which correspond to "household words," never tried to entertain nor to educate the crowd. And he was utterly incapable of making concessions either for the sake of winning an adverse public or of overcoming the prejudice of influential persons in high places who failed to appreciate him through some academic blindness. He was beloved as a man for his sincere kindliness and his enchanting courtesy, but he was capable of indignation. He was, if anything, more hostile to the intellectual dishonesty of the wise than to public ignorance, however arrogant; and his independence of thought and simple honesty of spirit were so great that he would not "play to the gallery" nor lead any of the noisy meaningless "movements" among painters which distribute "piffling" propaganda of one sort or another and succeed in achieving the easy notoriety which often passes for fame. Contemptuous both of sentimentality and of sensationalism, and tending in his own manner of painting to an expression marked by subtlety and even austerity, he was, in spite of all this, the most human and lovable of men, and the very essence of his art—what makes it great, what will make it immortal—is its warm and glowing humanity. Weir believed that art is not worth all the time and talk men spend upon it if it does not

quicken to more intense energy our inner consciousness, and if it does not stimulate to a larger and lovelier life our dormant faculties for living. If the value of art is measured according to its expressional power, then the art of Weir is a very great art even if it is not entirely easy of access. It is the pure gold deep in the earth, which we must dig to find, not the cheap gilding on the gaudy surface of commercial ornaments.

We have lost in Weir a painter of a great tradition—an artist absolutely individual and independent of any school, but one who belongs in the company of all those masters of truthful observation and personal expression in painting who have cared more for true and fine relations of color and tone, of light and shade, and for true and fine interpretations of beauty and character in the visible world than for the formal analysis of abstract aesthetic principles and the repetition of formulas for classical design. Weir was beloved by all factions in the rather overheated air of disputation in which, strange to say, art seems to flourish. There never was any doubt where he stood. Although a member of the National Academy since 1895, and president of that body from 1915 to 1917, he was nevertheless an adventurous spirit himself, open minded and sympathetic in regard to the adventures of the young men and frankly opposed to the tyranny of traditions and to all dogmatic intolerance. His reasonableness was so sweet that *poseurs* were shamed to sincerity and extremists sobered to moderation by his influence, recognizing in him a spirit no less young than theirs but mellowed by a temperate and judicious poise and a loyalty to high ideals. In his own work there is fundamentally a selection and a fusion of what was best in the truly great artists of many centuries. However, so fresh was his point of view, so spontaneous and ardent his response to the stimulations of life, so self-reliant his character, and so fond of experiment his boyish nature, that slowly, even laboriously, yet surely, he evolved and created for himself a technique which is his alone in the history of art and is the perfect medium for the expression of what he

had to say. Old masters as different as Velasquez and Rembrandt, Chardin and Gainsborough, Constable and Corot would have recognized in Weir an artist of their unmistakable kind. Jean Francois Millet stood before the prize-winning picture which Weir, a *Beaux-Arts* student at the time, had painted for his landlady of the Inn at Barbizon and exclaimed, "*Tout a fait distinguee.*" Where Corot, Monet, Manet, left off, Weir carried on.

I realize that I should not be hazarding an opinion nor daring to estimate the ultimate place in history of one so near to me in time and so dear to me in memory. I loved Alden Weir, and now that he is gone it is more difficult than ever for me to write of him as an artist in a manner altogether free from the bias of my affection for him as a man. Fortunately, in this case, the man and his work were one. It would be difficult to estimate the man and his own special and indispensable quality without reference to his work which perfectly and exquisitely expressed him. On the other hand, it would be a most unprofitable business to study his paintings from the merely technical standpoint since there is no technical merit in his work, however great, which explains the enchantment of his art, which is absolutely a matter of charm—charm and nobility breathed into his best drawing and pervading that unerring instinct of his for fine choices which we may call his taste, so that his art and his personality seem to be somehow compounded and inseparable. Fortunately, also, in my own approach to the consideration of the art of Weir, whatever bias of affection might have colored my judgment had I been privileged to know him long ago, that factor does not enter, for I held a high opinion of Weir's art for many years before I ever came under the spell of his magnetic presence and his lovable personality. At that time I wrote in an article, "America can boast nothing finer than the art of J. Alden Weir." Revising this at a subsequent date after meeting and knowing the man, I merely added that America could boast nothing finer and *nobler* than the art and *life* of Weir. And after all, I could have written it thus at the outset, for

independent of hearsay, intent only upon the canvases I had seen at this exhibition or that, I felt as if I already knew a great and good man whose paintings drew me and held me by their incomparable air of quiet distinction of ideal Americanism. After I knew the man who had painted them I understood them better. I knew that they were the radiations of the man's own spirit, sincere, almost shy, yet virile and joyous.

The two outstanding points which I wish to emphasize are: first, Weir's expressional persuasiveness, his capacity to make us see and feel that ordinary human experience is desirable and delightful, and the world full of places and people inexplicably attractive and worth knowing; second, the very perfect spirit which pervaded everything he did and found for itself a spontaneous, yet subtle method of expression, so well adapted to it that it seems part of it, this spirit animating and refining the rebellious substance of his paint. There is a third point which I wish now to stress—his Americanism, his combination of certain traits which we like to think of as characteristic, not of what is common but what is best in the American. And in this third aspect of his art we shall only be considering again the first and second, for they complete my very simple conception and interpretation of Weir the artist and the man. Weir's Americanism was, let me admit at once, of a special rather than a complete or composite character. As has been said of him, "From the America of immigration and quantity production he stood apart. His task was to fix the survival of the older America," the Anglo-Saxon America of the founders of our old families, more particularly yet, the American developed in New England and New York. Weir carried into American painting, writes Frank Jewett Mather, in *The Review*, "a quality of aesthetic conscience akin to that of William Dean Howells and Henry James in his earlier phase. Whether his theme was a New England village or farm or a finely bred American girl, earnest, trained in scruple and nicety of thought and conduct, always he thought to tell the truth of the matter, neglecting none of the finer shades and overtones."

Now this subtlety of observation and this delicacy of feeling are not generally considered qualities either of American art or of American character, at least not by those who usually talk loudest and longest about what they call "the American note" or "the American flavor" in books and plays and paintings. There is a cult nowadays across the sea and among the European-minded art critics of our eastern cities for Americanism in art. Whatever good work is done that does not give the American flavor or sound the American note can be excused by these critics as an excellent by-product, but must be discouraged as liable to interfere with the production of the genuine American article. Indeed the American article in art has become one of our successful industries. The continental relish for the American flavor is now catered to consciously and carefully by novelists, dramatists, musicians, architects, sculptors, and painters, impatient to acquire European reputation. To be sure, Walt Whitman, Bret Hart, and Mark Twain did not have Europe in mind when they created out of the raw fabric of their own experiences *Leaves of Grass*, *The Luck of Roaring Camp*, and *Huckleberry Finn*, yet even these great men were susceptible to the lure of a foreign vogue for their native products, and they all lived to luxuriate in their own homely Americanism. Whitman especially seemed confident of his future influence with the European-minded critics. He was always arrogantly self-conscious in proclaiming that he thundered with the voice of a new continent and of a new evangel. Unquestionably, there was in the man a glowing enthusiasm for the human species and a rapturous exaltation about the American social experiment. The European-minded critics are certain that Old Walt represents what American art is or should be. They insist that America is not only frank and free and brave but also vulgar and vain and fond of creating a sensation. Now it is true perhaps that our American symphony calls for a few blaring thrills of brass, but, after all, the big bassoon cannot speak for the whole orchestra.

The paintings of J. Alden Weir unconsciously express the reticent, innate idealism which guides and

guards the better known materialism of America. It is an injustice to ascribe to the average American an indifference to that grace of spirit which we call refinement. We may be a shirt-sleeve democracy, but we have our own standards. The attitude of the average American to that undefinable, unmistakable something which the old colored servants of the South used to call "quality"—the quality of their masters—curiously corresponds to that undefinable, unmistakable something in a work of art which artists and critics also call quality, recognizing an air of aesthetic aristocracy. In the mind of Alden Weir the beauties of refinement, to which he was ever bringing his big, genial, whole-hearted tribute, seemed to require from him also a technical language of similar distinction. He could become interested in a long familiar and unremarkable pasture or in an inconspicuous sort of person, and, without flattering in the least, could make us see what he had found to like and admire. Whether convinced or not, our hearts go out to him for believing and saying and repeating that homeliness covers but cannot conceal the beauties which are near and endeared by association and distinguished not by conventional comeliness but by essential character. Of such a kind was the idealism of Weir and in spite of the European-minded critics we know that this chivalry of thought and this idealizing love of familiar things are traits of the fundamental, the original American.

His themes were American, his mind was American, his method was American, he was American heart and soul. Of his patriotism there are many stories told. Although forty-six years old at the time of the war with Spain, he volunteered for active military service. I shall never forget the fire in his eyes as he spoke of our national dishonor in the unhappy early years of the World War. Nor will the splendid memory fail of that inclement day when Weir, old and ill and lame, but bouyant, ardent, eager to show his colors, marched with the artists in the "Preparedness Parade." It is only natural that Weir's national spirit should have

been strong, for the child is father of the man, and Weir's childhood was spent at West Point where his father, Robert W. Weir, was professor of drawing from 1834 to 1877 in the U. S. Military Academy. J. Alden Weir was born at the Point, August 30th, 1852, one of sixteen children. He was a normal, active, athletic American boy and there was nothing precocious either in his mind or in his talent. In fact, he showed no exceptional talent in the days when he first tried his hand at drawing under his father's instruction in the old barn back of the house. Nevertheless, the boy's enjoyment of pictures developed rapidly and he was determined to become an artist. His taste preceded his talent and he showed very soon that art was his natural language, that the root of the matter, so to speak, was in him. Given this inherent, aesthetic instinct, and the patient, self-reliant tenacity of purpose which characterized him from the first, and he was certain sooner or later to succeed.

As a newspaper critic once shrewdly suggested, if Weir had in his student days worked in an intimate relation with some great artist who had been also a congenial spirit and who would have helped him to mature his individuality of mind and hand, a master who would have borne the same relation to him that Twachtman bore to Ernest Lawson, he would probably have arrived and found himself and formed his own peculiarly distinguished style much sooner than he did. The man who almost, though not quite, performed this service for Weir was the Frenchman, Bastien Lepage. Weir went to Paris to study painting in 1873, and was enrolled in the *Ecole des Beaux-Arts* under Gerome, the painter of large, historical tableaux which show infinite labor and archaeological research and imitative drawing. Consequently, the pictures young Weir painted during his first year in that studio were "*a la Gerome*," and that means the antithesis of what he himself was destined to do. Although he never lost his admiration for Gerome as a teacher and was always glad to have had such grounding in correct drawing and minute observation as

the pupils of this stern old painter could not fail to receive, yet it was not long before the student saw the coldness and hardness of the method of his master, and even before he left the studio, other lights were leading his undecided steps in very different directions. Gerome disapproved violently of Courbet and the Impressionists, yes, even of Millet and Corot, but, to his credit be it said, he never interfered with the temperamental predilections of his pupils. He trained them conscientiously and solicitously in their drawing, but when they knew how to draw, he sent them on their separate ways with his blessing. In 1873 Weir met for the first time Jules Bastien Lepage, and subsequently became the intimate friend of this brilliant young Frenchman who, like so many other artists destined to an early death, matured rapidly and achieved in early youth both a style and a reputation. Bastien at twenty-five seems to have been regarded as a leader, as a *chère maitre* by the group of art students who gathered around him and were his comrades. Alden Weir was of this group.

In the book, *Modern French Masters* (Century Co. 1896), which presented biographical appreciations by American painters, the chapter on Bastien Lepage was written by Weir. It is full of intimate talk about the subjects which were of supreme interest to the Parisian art student of his time. Many a pupil of Gerome shared Weir's revolt against the artificiality and the perfunctory elaborations turned out with great effort in the name of art for the applause of the populace and the awards of the government. There was a great cry for a return to nature. At Mlle. Anna's restaurant, in the particular circle where young Bastien dined with his admirers, hung a picture of a French holiday in spring, which he had given in payment of his account. This picture was decorated by the boys when Bastien failed to win the *Prix de Rome* with his picture, *The Angel Appearing to the Shepherds*, and not one of the group but felt assured of the superiority of their wisdom to that of the members of the academic jury who had so stupidly failed to honor themselves in honoring their

ideal. Bastien invited them all to visit him at his home in the village of Damvillers during the fête of the village, and Weir describes the experience with delight in the memory. As he says, "We loved Bastien for his honesty, his truth and his sincerity," and he retained a good part, if not all, of his boyish enthusiasm for the French realistic art with its genuine love of nature and human nature, its unaffected simplicity, its kinship of line to Holbein, its popular adaptation of the subjects of Millet and the true values of Manet. I have touched at some length on the friendship with and personal influence of Bastien because there is something very significant of Weir's character in the fact that, unlike so many others who felt the charm of this master, Weir showed no trace of imitation of the Bastien *motif* in the work done at this time.

As a student, Alden Weir painted genre, still life, portraits, and landscapes, and only his very earliest works, which he destroyed, showed the influence of Gerome. I have seen evidences of his extraordinary versatility in these formative years, a charming head of a young Breton girl, a story telling picture called Burying the Pet Bird suggesting the Frenchman Boutet de Monvel, a Vollon-like still life, a romantic figure composition with light and shade suggesting the influence of Italy, finally, a bright and rather tight little landscape giving promise with its joyous intimacy of mood of the great landscape poems of later periods. The handsome young American was adaptable, impressionable, responsive to many influences and all of them fine ones. But he had not found himself in those days. He was traveling pleasant ways, seeking beauty everywhere, unconsciously searching for himself and failing to find his own individual expression. In 1876 he went to Spain and thenceforth Velasquez became his god of painting. It was only after seeing Velasquez that Weir really caught up with the advances made in his own time by such men as Whistler, Fantin and Manet. Returning to the United States in 1877, he spent the next two years in New York in John F. Weir's studio in the Benedict

Building. It was then he painted *The Muse of Music*, a very handsome and well painted thing in the grand manner, formal and not entirely sincere, for the grand manner did not come naturally to Weir, who was always what the French call an *Intimist*. In 1880 Weir won a medal in the Salon and went with Bastien to Belgium. In the summer of 1881 he went to Holland with his brother and John H. Twachtman. This was the beginning of the intimate friendship of the two great American artists. From all accounts it was a delightful summer, and Weir grew to reverence Rembrandt for tone and poetry, and Franz Hals for his bold mastery of medium, and as never before to love landscape *motifs*, the immense skies of Holland with their ever changing and never failing fascination of light. In 1883 Weir was again in Paris, and on this trip he was chiefly interested in the Impressionists, becoming so convinced of their importance that he purchased many of their works for Mr. Erwin Davis, who had commissioned the young American painter to buy for him some representative examples by the contemporary Frenchmen, relying upon his taste, his already celebrated eye for true quality in works of art. Fortunately, through Weir's influence, the *Joan of Arc* by Bastien and the *Woman with Parrot and Boy with Sword* by Manet passed from the Davis collection to the Metropolitan Museum, where they are monumental to the wisdom of Weir, and where they have exerted a powerful influence in the development of American art. By this time Weir's taste was formed. It remained for him, however, to work out his own artistic destiny and save himself from the quicksands of eclecticism. It is said that when Weir came back from Paris in 1877 he was in appearances, in taste, and in manner a charming Parisian. Although the years abroad had been for him a period of great inspiration and enjoyment, and although Europe had given him his education as an artist, nevertheless, he never seems to have even seriously considered the idea of living outside of his own country and, after his return in 1883, he married and settled down on a farm in Connecticut, exhibiting

pictures with regularity in New York and Boston and becoming the most American of Americans. He made hosts of friends with his enchanting smile and his genial sportsmanship. One knew that under the surface there was rugged manliness which could be aggressive, but one knew also of the kindness and tenderness of the man and his high ideal for art and conduct. He was soon elected a member of the Tile Club which included among many of New York's most representative men in the various arts, William M. Chase, Frank D. Millet, Edwin A. Abbey, Hopkinson Smith, and Augustus St. Gaudens. During this period his style was still in the process of being formed through the knowledge gained by constant experiment. He knew what he wanted to say. The American portraits and landscapes which he wished to paint were already in his mind's eye, but at the exhibitions during the 80's Weir was represented by pictures which won the praise of the more discerning critics for their color rather than for their originality. He revealed what he had learned in Europe, and his aim seemed to be, what with Chase it always was, to show America *le bon peinture*, the intrinsic beauty of surface obtainable in oil painting which ought to be cherished for its own sake. It was what America needed at the time, this emphasis of the young man upon art for art's sake, this insistence that in art, subject, however pretentious, is of no consequence without style which may dignify the slightest subject. Weir's still life of this period is as distinguished as that of Vollon and superior to what Chase and Emil Carlsen were doing at the time. Collectors are proud today if they have kept the luscious paintings of flowers which they probably acquired without due appreciation of their historical importance. Those things possess so rich and unctuous a pigment, so charmingly rendering their subjects with especial regard to richness of tone and texture that they would make Weir sure of a reputation as a "painter's painter" even if he had not gone on to greater achievements. While America was learning to recognize quality in painting through just such masterly works as these

by Weir, the young painter himself was experimenting with new methods, new ideas, and a new palette. The portraits which he exhibited at this time indicate the chosen direction of his progress, but they were considered, and correctly so, inferior to his still life. They show his desire to emulate the wonderful dull blacks of Franz Hals and Manet, and their even more wonderful flesh kept gray and flat by a diffusion of enveloping atmosphere rather than accented and modelled in arbitrary light and shade. But Weir missed the magic of these secrets known only to Manet and Hals, and today his early portraits seem rather dull and austere.

The turning point in Weir's artistic life came in 1891, when at the Blakeslee Galleries he showed for the first time a collection of landscapes in the high key of color and with the transparent shadows of the French Luminarists. A second important landmark was the exhibition at the American Art Galleries in 1893 of works by Weir and Twachtman, together with a few pictures by Monet and Besnard which were included for purposes of explanation. The newspaper critics applauded the celebrated Frenchmen but lacked the courage to praise their American disciples. Weir and Twachtman had become converts to this new style of painting and of observation. Both of them set to work to study the great out-of-doors with their new eyes, and to experiment with the application to canvas of broken colors, which by the demonstration of Monet had been proved capable of recombination, not by mixture but by juxtaposition, so as to give a closer suggestion of light containing and consisting of all the colors of the spectrum. While still painting and exhibiting tonal pictures of most discreet conservatism, Weir and Twachtman were preparing to apply Monet's method to American subjects and to carry it on with modifications which would make it more adaptable to individuality of expression and more amenable to beauty. No one else, perhaps not even the artists themselves, realized the importance of the steps they were taking. These American pupils were to surpass their French masters by making their

method more flexible and more spiritual, while retaining all the truth and all the vitality. But the first experiments were not impressive. In fact, Weir's early effects of sunshine were often very weak, suggesting a sun trying to come out of a fog. The tonal harmonies were charming, however, and the soft colors suggested to the contemporary critics the qualities of pastel. Weir had won a reputation as a masterly painter, so the critics were on their guard against any hasty accusation of incompetence. But people said, "Too bad—another good man gone wrong," and the critics damned with faint praise, and only one or two seemed to realize the tremendous importance of this forward march by two gallant spirits not content to stand still. A little later Childe Hassam and Theodore Robinson came back from France with sparkling rainbow palettes and began to paint with a greater facility in the new style, an earlier attainment of their full powers than the early efforts of Weir and even of Twachtman. But the two great American painters of spiritualized naturalism proceeded on their own way, showing the results of their study of Monet, but, unlike Hassam, showing also their intention to depart from his method and to adapt it to their own ends. What matters it now that those early landscapes of Weir's were often loose without much strength, and shadeless without much light? The important fact is that they were great art in the making. And they intrigue us! We are conscious of something very personal and somehow very original trying to get itself said in a language not yet entirely familiar. There is a timidity and a recognition of difficulties. But the spirit pervades the substance. And occasionally there is a wonderful work of art full of touching poetry of remembered atmosphere, of memories adsorbed in moods of sensitive response and transferred to canvas with an art which seems as yet more a matter of happy and lucky inspiration than of confident mastery of method.

I have a small landscape of about this time, a country lane in spring with a glad sun shining and a

hint of birdsong in the sweet, still air. There are radiant pinks and tender greens, an endearing touch, a lyric charm. Usually the sun in the early Weir landscapes did not shine so well. But they are invariably full of dimly lighted or partially shaded places which are marvels of tone. It is certainly not difficult for us now to see the great Weir emerging out of these formative pictures which were in their day accounted failures. Some critics had faith in them. Clarence Cook wrote in 1891: "Weir sees as the Venetians and Velasquez rather than as Raphael, Dürer, and Ingres, with their hard, precise and analytic eyes. And these new works show no violent change. They are the logical outcome of Weir's artistic tendency since his return from Europe. Only the key has changed. The man is on his way," Here was one critic who saw that Weir was approaching, if indeed he had not already arrived at, that initial stage of all the art that is truly great—when the method is discovered, and occasionally the scope and aim of it realized, whereby one's own innermost individual *something* may be given to the world to add to the sum of the world's treasure.

And so after ten years of experiment and cultivation the art of J. Alden Weir came at last to fruition. He was destined to say in his chosen way something that needed to be said about his native land, and to say it more exquisitely, with greater delicacy of feeling and distinction of style than lay within the powers of any other American. The large, formal figure compositions, the still life, even the early sombre portraits were only practice for the ultimate themes. When he had thoroughly mastered his craft and learned from experience and won for himself a hearing and established a reputation, he then deliberately turned his back on everything he had done, disregarding the material success which could have been his for the asking had he continued along more traditional lines, and broke ground in more untilled fields. Chalky and dull in color as the earliest landscapes in high key may have been at their worst, they were, nevertheless, eloquent of

the great American poet-painter who had finally found himself and who could be counted upon for an ever increasing mastery of his method and for works of the most personal, inimitable artistry and the most sensitive and beautiful emotions. Having discovered and attained to his own predestined style, his work became for the first time the spontaneous natural expression of his own life and character. Thereafter his pictures form links of record of a rare personality devoted with single-hearted sincerity to the expression of the simplicities of life, the finer experience of everyday which are revealed only to spirits of singular sweetness. The rare intimacy of the pictures of Weir, their true delight in little things and familiar surroundings, their wholesome joy in life's untroubled hours of serenity and genuine contentment remind me of Chardin, the difference being that the Frenchman's pleasure was in the domestic interior, whereas Weir's was out-of-doors, on the farm, in the fields and woods, at the hospitable hearth only after nightfall. But both men wrote in terms of exquisite tone, color, and atmospheric envelopment their appreciation of the quiet joys of just being alive from day to day with a chance to observe how lovely things really are if we know how to see. Velasquez had taught him how to see, how to find the elements of beauty anywhere and to make for himself, by means of exquisite craftsmanship, true patterns of form and line and texture and colors harmonized in light and air, a world of enchanting realities. It is, however, of Chardin's scales of values, particularly his gamut of lovely grays and tawny tones that Weir's palette reminds me. And in both men there was that expressive intimacy of spirit, that art which became a part of their own lives and their way of conveying to others their satisfaction in life. From the time when Weir first began to exhibit his paintings in the new method there is no better way of knowing his life than through his art.

In the first exhibition at the Blakeslee Galleries in 1891 hung the now well known picture, *The Christmas Tree*. It was with a father's love that he painted the

exciting moment in a little girl's life when at bedtime Christmas Eve she tiptoes in her nightie into the room to behold The Tree in all its glory. Every bauble and every bit of tinsel comes straight from Fairyland, and in later life I wonder will she ever thrill to glamor more enthralling than that rapture from the candles. Her eyes are big with awe and wonder, yet with pride, too, of possession and with solicitude for the safety of so many treasures to be left untouched till morning. At the exhibition the critics were amazed at the daring of this picture with its flickering illumination and color reflections. Today its impressionism is of less interest than its sentiment.

Very personal also are the landscapes which Weir painted on his own farms. He spent six or seven months of each year in Connecticut, where he owned two country places and where he hunted and fished in season. He would spend alternate summers at Wyndham and Brancheville. The place at Wyndham is an estate of 350 acres and has been in Mrs. Weir's family for a hundred and fifty years. A ball in honor of Lafayette was once given in this house. Each generation of Mrs. Weir's family has added to the original structure until now it is large and rambling and full of quaint charm. There are ancient forest trees round about, which many of us know in the landscapes not only of Weir, but of his friend, Emil Carlsen, who lived nearby for many summers. The other place, at Brancheville, is of 200 acres, heavily forested with fine old timber. The old house has an immense living room with an old oak floor, and its windows are quaint Dutch ones which Weir brought from Holland. Once when a party of friends joined Weir for a week of fishing in the spring, three cords of wood were burned in two days in the two vast fireplaces at opposite ends of this room. Six-foot logs are offered up and the sacrificial blaze is a roaring one. It is pleasant to think of Weir's handsome, silvered head in the firelight, his eyes merry with anecdote or softened with sentiment. He was a delightful story-teller and a great listener to the stories of others, for his big

laugh was of the kind that warmed the heart. Around this fire he painted, his hunting dogs asleep after a hard day in the woods. Fishing was a passion with Weir. Recently I was looking over his scrap books, and most of the press clippings were not about art at all but about *The Elusive Trout*, *Beguiling the Tom Cod*, *The Sensitive Salmon*, etc. It may seem rather surprising that among his landscapes we find few records of the sport he loved so well, no pictures of little rivers where he waded hip high, and of shadowy pools into which he dropped his tempting flies! Evidently he felt that art had no more to do with sport than with politics and business. It was his life work to search for beauty and then to express it. Sport was his relaxation into which he could plunge with whole-hearted gusto, leaving art behind. There are two pictures entitled *The Fishing Party*, both very lovely landscapes with figures enveloped in silvery sunshine, but they are for connoisseurs of rare beauty—not for sportsmen. He was fond of telling stories, but not on canvas.

One of the most charming and one of the most completely representative of Weir's paintings is *The Donkey Ride*, showing his daughters, Dorothy and Cora when they were little girls, mounted on dainty and demure gray donkeys against a beautiful background of hillside and summer sky. This picture, from a decorative standpoint, is a thing of rare loveliness. In texture and color it is not unlike a mellow old tapestry. The design is as fine as if it had been by some master of the eighteenth century, when Japanesque caprice rather than classic convention ruled and when the composition of a pictorial theme was like a quaint and captivating melody. Often, by the way, we are reminded of the spirit of the eighteenth century in England. As Royal Cortissoz has observed, "There is the Old English flavor of those winsome color prints, *The Cries of London*, in such a picture as *The Flower Girl*." But to return to the *Donkey Ride*, I consider it a complete expression of the art of Weir, for it has not only his exquisite taste and sense of pictorial beauty and his power to create

it afresh with a charm peculiarly his own, but it is a poem on all happy American childhood in the country. The one truly lyrical picture by the Great Velasquez is that of little Prince Balthasar Carlos taking a pony ride on a brisk morning of wind and sun. There is exhilaration in it, a sense of physical joy of a gallop in the hills and a child's rapture at freedom and rapid movement. A more tranquil mood pervades this donkey ride of the Weir children, but the joyousness in nature and play is of precisely the same human quality.

Scarcely less charming is the other donkey picture entitled *Visting Neighbors*, representing Core Weir tying her donkey to a garden gate at about noontime of a summer's day. Whereas the other picture was not only a donkey ride but a decoration, this picture is first and last just a vivid glimpse of the real world somewhere in Connecticut and of a little girl who had a good time with that particular donkey, and who used to tie it to that particular rustic fence which her daddy had noticed took on just that grayish violet tone at that hour of the sun-flecked green midday. The quivering joyous languor of the hour is conveyed in the artist's most masterly manner. The tree trunks are rough and beautifully true, the texture of the bark suggested in striated brush strokes of violet and brown. The drowsy, gray donkey and the little girl are immersed in sun and air. As the little girl would say, "It's the good old summer time." There is a monotony of content everywhere. How it stills the soul to feel a little breeze in one's hair, to stretch one's body till it thrills, to play with children and animals, to be a child again and follow the rule of one's own caprice in the great outdoors! Richard Hevey, poet of comradeship and open sky, has put the mood into living language:

"O good damp smell of the ground,
O rough, sweet bark of the trees,
O clear, sharp cracklings of sound,
O life that's athrill and abound
With the vigor of boyhood and morning
And the noon-time's rapture of ease!

Was there ever a weary heart in the world,
A lag in the body's urge,
Or a flag to the spirit's wings?
Did a man's heart ever break
For a lost hope's sake?
For here there's such lilt in the quiet
And such calm in the quiver of things."

Back of the old farm house at Brancheville is the rocky hillside which Alden Weir has immortalized in that epic picture of the American farmer amid soil and sky entitled, *Plowing for Buckwheat*. Weir did not want us to think that the frame for this picture would contain all that was worth transcribing. He wished us to understand that his viewpoint was more or less unstudied, that what he painted was a hastily selected part of the big world of cloud-shine and old trees and fallow, fertile fields which stretched immeasurably above and beyond the borders of his canvas. This largeness of nature worship and this unconscious function he performed of painting epic poetry accounts for what has been called a carelessness on Weir's part in composing his landscapes. We have seen that in the *Donkey Ride* he could satisfy those who require a pattern in a picture, but the essential Weir was more concerned with expressing the big though simple emotion which nature gave him than with the patterns which could be arranged out of her raw materials. If you are a lover of open American hill country, not the culminating majesty of mountain peaks, nor the perfection of paradise valleys, but just nice livable, lovable farm land, neither too opulent nor too austere, then you will enjoy yourself in the landscapes of Weir. The season is usually summer, the hour, morning or approaching noon, with overhead light in a pale sky. In the *Plowing for Buckwheat*, great billowy clouds are crisply accented against the azure in silvered brilliancy. A drowsy heat pervades the air. It feels good to drop down on some sweet smelling hay under some friendly tree and look up. An imperceptible breeze stirs the upper branches. The distant woods are mel-
lowed by traveling shadows. It is pleasant to watch the

slow, brown oxen that plow the sunbaked hillside and the farmer who turns from his plow with a friendly "how-d'do." In the Fishing Party the sun, under which we stand, seems to silver the ferny foreground, and the sky, so subtly modulated in key from the horizon up, and the distant woods, beyond the open fields. Across a little bridge pass the white clad figures of friends going a-fishing. If only one could paint the hum of insect life and of incidental, unimportant human voices, the sensation of any sunny summer day on the farm would be complete. And Weir was no more true in recording day than in remembering night. He fascinates with the exact effect of a spooky darkness as fitfully glimpsed in the flare of a rusty old lantern.

In painting people instead of places it is fascinating to see Weir's mind concerned with different problems and expressing beauty and character with a technical method of combed lines and varied surfaces for conveying a sense of flesh and fabric under diffused light, which is perhaps even more individual and distinctive than the short strokes, the embroidering touch employed so wonderfully for the landscapes. In the many paintings in oil and water color celebrating the charm of children, one is led to believe that Weir's genius was never more inspired than in the interpretation of childhood. Who can forget the sweet and demure little girl whose kitten slumbers in her gently folded arms? This picture deserves to rank among the great portraits of children. Even Sargent's Beatrice and the Bird Cage is not more beautiful than this Lizzie Lynch of Weir. Sargent becomes tender and reverent in painting children, but when they grow up he sees them in his worldly way, wisely and without sentiment. Weir's humanity did not stop with children. His imagination was deeply moved by the old-fashioned American girl as he loved to think of her in her sensitive, radiant youth, full of her sweet contradictions, free and frank and fine of body and soul, the comrade and playmate of man, yet more puritan than pagan, with an inarticulate reserve coming up at the first hint of sentiment, to conceal depths of dear

mysterious, feminine emotion. All this we seem to know about Weir's young American woman without, of course, ever stopping to analyze her, which would be destructive of the charm the artist makes us feel in her presence. Weir was the inspired interpreter of a chosen American type marked by a penetrating sort of refinement which he revered and to which he could impart a charm through the chivalric graciousness and the Hellenic joyousness of his own mind. This refinement which he saw and sought to express was not at all a matter of class or race, although the New England woman of old Anglo-Saxon lineage was a favorite theme. In the portrait of Miss De L. at the Corcoran Gallery in Washington we feel Weir's interest and respect for a type which might be called middle class European. We rather think (something in the colors of the dress perhaps suggests it) that she is a Swiss governess, that she teaches French year after year in some American school and is homesick for the old country. Or perhaps she is a dressmaker, or manages a small shop. She has been good looking, but years of drudgery and disappointment have exacted their toll. She is a brave, good woman. And so it is always with the types chosen by Weir. He sets us wondering about them. The men also are interpreted with profound sympathy and understanding, their physical beings suggested so that we feel their living presence in the pigments. The portrait of his brother, Colonel Weir, is a masterpiece and, as the subject requires, is ruggedly painted in a style which would have done injustice to his gentler sitters. And the portrait of the great poet-painter, Ryder—what a noble head! We know that this man was a genius and that he lived in a world of his own invention. Weir was Ryder's guardian angel. Some day there will be a tale to tell, a revelation of all that the great-hearted Weir was to poor Ryder, and it will be a most beautiful legend. No two men could have been more different. There was never anything literary or mystical about Weir, and yet he understood Ryder's art, and in his portrait we understand the superb

intellect and greatness of soul which animated the lonely poet, whose eccentric personality and shabby appearance might have attracted mere curiosity and pity from the casual observer.

Perhaps the finest of Weir's many interpretations of feminine character is *The Gentlewoman* (Pl. XXIV), of the National Gallery in Washington—a person of rather austere intellectual type, one might assume at first glance, yet soon enough we recognize that she is really a gentle, gray lady whose meditations are sound and sweet. It is delightful to remember her, the simple lines and colors of her dress, the unobtrusive dignity of her hands, the smouldering light in her downcast eyes, as of spent moments and bright memories. With infinite sympathy and admiration her youth has been revealed in the very embarrassment of taking leave of her for always. Yet we see that the art of living is ever at her command and that the years will add to her exquisite distinction. Hers is a personality before which we stand uncovered, introduced by a great-hearted gentleman who knows her worth and whose praise is as fine a tribute to woman as ever an age of chivalry could boast. The man who created this portrait was not merely an accomplished painter; he was a great artist and inspired by a great ideal.

If *The Gentlewoman* is Weir's masterpiece in the idealized naturalism of his figure paintings, the *Pan* and the *Wolf* may be chosen (it was his own choice) as his most important landscape. Certainly it is the most impressive because of its classic grandeur of design. The artist seems to have said to himself, "Now suppose I try a classic landscape as Corot would have painted had he lived a little longer"—and so there is the same glamour of twilight on the edge of a wood, of color lingering in the western sky, of the illusions that linger in a green glade all silvered in dew-drenched dimness, of the antique figures we imagine in a dreamy dusk. But now there is added pale air that trembles, transparent shadows on the rocks and jewelled gleams woven through the mystery of dark and light to make

the memory of on-coming night not only more beautiful but more true. It was a daring thing to challenge comparison with Corot, yet the comparison was inevitable, nor does Weir suffer by it. The Frenchman may have been the greater master of design and the more perfect painter, but he confined himself to a much narrower range. Weir was incapable of repeating the Pan and the Wolf as Corot repeated over and over his dance of dryads or of Italianized shepherds in sylvan settings where every tree is in its proper place. The two men were most alike and most spontaneous and delightful when they were content to represent the familiar scenes they lived in and learned to love. Corot pleases me most in his bright little *paysages intimes* of sunny country roads and his well loved lake near D'avray. And it seems to me that it is not the Weir of the impressive Pan and the Wolf, but of such pictures as the Fishing Party, the Plowing for Buckwheat, the High Pasture, the Corner of the Field, the Birches at Wyndham, the Building of Dam-Shetucket and the Woodland Rocks, who will live forever as the poet-painter who sang the song of spring and summer and autumn in the American countryside, the song of American trees and skies and of New England fields, for all their stones, and of friendly woods, not in spite of but because of their slender second growth. Weir loved nature too much in particular places to alter the aspect of his familiar world. If an ideal loveliness is in his landscapes, it is the idealism again of the man's own nature expressing its joy in reality through a magic of beautiful painting.

Weir's wonderful versatility and courage for new experiment, the adventurous spirit of the man, continued till his old age, and it is a joy to record that his latest pictures are in many ways his best. There seemed to be an ever increasing mastery in his method of solving each problem. Never before had he been more certain to achieve beauty of texture and solidity of form, evanescence of light and concealment of labor. The Knitting of 1918 has exquisite transitions of light and the most enchanting tones. The modelling achieves

on a flat surface, and without apparent effort, a perfect realization of weight as well as form. The drawing is profoundly sensitive and expressive of the subject, a wholesome American girl day-dreaming as she knits her helmet of gray wool for the boy who will fight for her rather more than for democracy. In spite of fatal illness and failing strength, J. Alden Weir, in this affectionate tribute to the American woman in the war, did his bit with all his accustomed genius, nobility, and charm. On the 8th of December 1919, Weir died of heart failure after a protracted illness through which he had been inexhaustibly cheerful, patient, and gloriously productive. He will always symbolize for me in his life and express for me in his art the wholesome sagacity of choice, the nervous complexity of purpose, the high unformulated ideals, and the virile simplicity of soul of our own, our fundamental United States.



Fig. 1—PETROGRAD, MUSEUM OF ALEXANDER III: LAST DAYS OF POMPEII.
BY BRYLOFF.



Fig. 2—TOLEDO, MUSEUM OF ART: THE FLOWERS, BY SEIDENBERG.

A Russian Painter Of The Nineteenth Century, Elyas Repin

by LOUIS E. LORD

In selecting Elyas Repin as a representative Russian painter of the nineteenth century I am not so much interested in the biography nor even the artistic career of the man as I am in showing how he epitomizes the Russian painting of that period. This important school of painting has been little studied by western critics; there are few copies of the paintings outside Russia and few names that have commanded an international reputation. Veretchagin is perhaps the one conspicuous exception, but in Russia the fame of Repin overtops that of this great war painter.

I have often thought that the history of a country could be more intimately written from a careful survey of the contents of its art galleries than from the dispatches in the war office. In France it would be easy to trace the development of the people's soul and even to infer the political development from the frozen classicism of David, through the grace and freshness of the Barbizon school and the prurient prettiness of the later art to the clear flame that burns alike in the genius of Rodin and the artificers of the commemorative medallions. So in the Russian painting of the nineteenth century the historian may read all the details of an oppressed people's struggles to be free.

The significant work of the century began in 1834 with the exhibition of Bryloff's *Last Days of Pompeii* (Pl. XXV, fig. 1). Perhaps no painting has ever been received with more enthusiasm. While it was being painted in Rome, the most exaggerated reports were spread as to its excellence. It is said that Sir Walter Scott sat speechless before it for an hour and then said that the artist had created not a picture but an epic. Its fame preceded its arrival at St. Petersburg and

from the time of its exhibition there in 1834 till the death of the artist in 1852, Bryloff was a dictator in Russian art. It is difficult for us to see in the painting anything to justify such enthusiasm. A contemporary says that the painter has "stolen the fires of Vesuvius and lightnings of heaven." The colors may have faded somewhat. At any rate they are now cold and hard; the figures are confused and the interest dissipated. The painting gives the unfortunate impression of being a sort of unhappy and unwilling combination of the congealed classicism of David and the boisterous turmoil of Tintoretto. The best portion of the picture is not the central group—the open-mouthed woman whose flight is assisted by her husband and hindered by her clinging child—but the group of male figures at the left, struggling with the falling door. Here the painter may be said to have fairly solved the problem of intricate and united action. In the left foreground the painter has represented himself—a bearded man in middle life. Stilted and grandiose as this painting is, it forms the basis on which modern Russian painting is developed. From 1834 till 1863 the prevailing type is the large canvas, the semi-historical subject.

Two tendencies were, however, at work which resulted in the secession of 1870, the founding of the Artel, and the overthrow of this stilted pseudo-classicism. These were, realism as represented by Venetziannoff, Fedetoff, Peroff, (and in religious painting, Ivanoff), and purpose painting. The latter is the most characteristic feature of Russian nineteenth century painting. We should now call it propaganda and be charmed with our penetration as we always are when we delude ourselves with the belief that we have solved a problem by renaming it. It was part of the liberal movement begun with the accession of that kindly tyrant Alexander Second in 1855. The Nihilists began their campaign of "going in among the people." In literature the works of Gogol and Tolstoi began to arraign the governmental abuses. Purpose painting—

such painting as *The Apotheosis of War* by Veretshagin, "dedicated to all conquerors, past, present, and to come," with its bitter satire on the glories of war and the fruits thereof, or *The Plowers of Seidenberg* (Pl. XXV, fig. 2), with its scathing indictment of conditions on the Russian estates, began to be in vogue. The mediaeval artist wrought for the glory of God, the Russian artist for the destruction of autocracy. The paintings of this school reveal the pathos and despair of Russian life—the deadly apathy that has ceased to feel pain, that has never known delight, the greed and injustice of oppression, the endless waiting for deliverance, the absence of desire. These men are in a sense realists, but the world that they depict is that old Russian world where the *lacrimae rerum* never cease—that world whose divinities are not the merciful twin gods Hypnos and Thanatos, but the Erenys of desolation and despair.

From this purpose painting historical painting was an easy development. Figure and landscape painting—painting for its own sake and not for moral purposes—came later when the earlier impulse had exhausted itself and the artists perceived that the beauty of the painting might in itself be an aim. In the most general terms, then, it may be said that Russian painting developed from a formal classicism through realism and purpose painting to a free and independent art.

Elyas Repin has passed through all these stages, save the first, and seems equally at home in them all. He was born, of Cossack ancestry, in 1844. He was educated in the Royal Academy and studied in France and Italy. He has, however, taken nothing from his residence abroad except an unusually careful technique and a thorough grounding in the elements of his art—a background of exact knowledge which many of his countrymen lack. Practically all his life has been lived in Russia. In thought and feeling he is thoroughly Russian. In versatility he is nearly the rival of Menzel. He has painted with distinction in almost every field except that of religious art. Here his attempts

have been conspicuous failures. He seems, like Rembrandt, unable to paint forms which he has never seen. Manoah's Opfer in the Dresden gallery, with the curiously unhappy angel which mars that picture illustrates my meaning. Something of this inability to visualize satisfactorily unreal figures seems Repin's only limitation.

The Arrest in a Village is one of his purpose paintings. It is an early work. In a barren room lighted by a narrow window and a half-open door, stands a young man who has just been seized by the agents of the secret police. The officer in charge is examining some of the documents which have been found and from the room half disclosed at the right, another spy is eagerly bringing fresh evidence. Through the door is also to be seen the face of the terrified young wife. The contrast between the open scornful face of the prisoner and the fiendish anxiety of the spy who is bending over the officer in charge is masterly.

The Reply of the Cossacks to Sultan Mohammed IV (Pl. XXVI, fig. 2) was one of Repin's favorite historical themes. Himself descended from the Cossacks, he seems to become by his own right an interpreter of their boisterous glee. A letter is to be written in answer to the Sultan's demands. The scribe sits at the table and about him are gathered the general, his staff, and many privates. They are vieing with each other in suggesting insults and gibes which the scribe is writing with the keenest of appreciation. There are many variants of this picture. One is reminded of the many versions of Boecklin's Island of the Dead. These pictures are a veritable riot of color. The number of facial types is also remarkable. Every shade of mirth from sneers to shouts of laughter is there. The brush strokes are bold, the effects broad and sure. The paint is laid on in great masses, reminding one of Rembrandt's later style. The faces are carefully modeled and the clothing and ornaments only broadly sketched in. They are masterpieces of composition and justly among the most esteemed works of this artist.



Fig. 1—MOSCOW, TRETIAKOFF GALLERY: IVAN THE TERRIBLE AND HIS SON, BY REPIN.



Fig. 2—PETROGRAD, MUSEUM OF ALEXANDER III: REPLY OF THE COSSACKS TO SULTAN MOHAMMED IV, BY REPIN.

In the Tretyakoff Gallery in Moscow a crowd can always be found before the awful painting of Ivan the Terrible and his Son (Pl. XXVI, fig. 1). Women sometimes faint here and an attendant is always in the neighborhood in case of eventualities. Some years ago a man became temporarily deranged while looking at the picture, and slashed it across with his knife. Ivan in a fit of anger has struck his son with his iron pointed staff and realized too late that his blow has been fatal. The realism of this painting is almost overpowering. The ghastly details are revolting. The blood streaming from the head and nose of the dying prince, his vacant eye, and the insane ecstasy of fear in the assassin's eyes are things that haunt the imagination.

Repin is equally at home in painting Russian peasant scenes. In a department of art which C. E. Makovsky and Vasnetzoff have made particularly their own, he is able to surpass either as it were almost casually. Russian peasants have few festivities, but they know how to enjoy those few with the utter abandon of children. "The care that rides behind the horseman" is not theirs. The spirit of the village dance, the spirit of the imperial ballet without a trace of its grace and lightness, lives in Repin's picture of The Village Dance with its ring of eager observers, the fond couple at the right, the village critic on the left, and the musicians in the left foreground. What a contrast the latter are, the violinist with her light touch and rapt expression and the blacksmith who presides over the pipes—a typical Marsyas!

Neither Veretchagin nor Repin are portrait artists, yet each could turn his hand to this if necessary—witness the portrait of an old steward in the Alexander Third gallery at Petrograd and Repin's painting of Leo Tolstoi. Repin has painted the great writer many times but Tolstoi at the Plow (Pl. XXVII, fig. 1), is the Russian critics' favorite. It is Tolstoi in his own chosen occupation. In the study of the face one forgets almost how carefully the artist has managed the elements of his picture. The very idiosyncracies of Russian agricultural implements are made to screen and

reveal the central figure. There is a suggestion of the novelist's own great nature in the sweep of the hills and the cleansing breath of the breeze. It seems almost impossible that the same man who drew the careless children of *The Village Dance* should have also given us the monumental resolution and the brooding pity of this stern face. It is the face of a nation's hero who like *Regulus of Rome* has put from him the clients who crowd about him and the relatives who would stay his course and treads alone the path of his own soul's salvation.

The *Burlaki* (Pl. XXVII, fig. 2)—the haulers of the Volga—is, perhaps, Repin's masterpiece. Along a strip of barren sand, under a pitiless sun, a group of peasants are slowly advancing laboriously towing a heavy vessel. The first impression the painting conveys is one of sheer weariness. It is the impossible physical strain that breaks the heart. They are of many types and all ages—these haulers—one is a man bowed with years, another just a lad who is not yet broken to the work, and he lifts his shoulderstrap to readjust the strain; he is wistful, questioning vaguely, almost rebellious; another is almost overcome with the heat and shades his head with his hand and arm, one is a loafer, but he is the only one. The rest all step in time. If the strains of the pathetic "*Song of the Volga Boatman*" could only be heard the picture would be complete. It is just such a sight as I once saw looking down on the Volga from the Kremlin at Nijni Novgorod: the broad, peaceful plain before me, the sun setting beyond the far hills, the noble river, a broad silver band, drawn to a thread on either horizon, and from its bank far below the weary strains of the haulers' song floated up like the wail of a people forgotten of God, like the refrain of the Russian national hymn, "Grant to us peace in our time, O Lord."



Fig. 1—MOSCOW, TRETIAKOFF GALLERY: *TOLSTOI AT THE PLOW* BY REPIN.



Fig. 2 *THE BURLAKI*, BY REPIN.

The History Of Interior Decoration

by ROSSITER HOWARD

Day by day as we are watching the elaborately mechanized systems of the nineteenth century disintegrate, or melt in the heat of passionate desire for change, as we feel civilization in a state of flux, with many still unmolten fragments of the old systems floating about, we art students must all of us be eagerly watching for forms expressive of the new epoch; for we are in the habit of reading the drama of world history through the things which man has made for his pleasure—his houses, furniture, pictures, temples. History to us is not a line extending backward into a distant past, but is rather a sphere into which all of the past is rolled, and we in the center of it have acquaintances in all epochs who tell us how the ball grew.

How is it with our students? Are geology, archaeology, history, literature, music, art, physics and economics united as threads in the tissue that has been woven and which we are still weaving? Or have the teachers of these things been so keen about their own subjects that they have kept them unrelated to each other, and therefore unrelated to the lives of the students? Such compartment education is going out of fashion in our public schools, and art teachers more than any others can help to bring about a more vital organization of knowledge in the colleges.

The branch of art history that more than any other offers opportunity to make vivid the history of the race is the history of man's habitations and their furnishings. And this subject has another great advantage—it touches our personal life more closely than any other and establishes an aesthetic connection between the student and his surroundings, making conscious his reactions and intensifying them.

The Roman house is a conspicuous example. It interprets the Roman family so racily that the student may have familiar intercourse with the people of the time, especially if he may read a bit of the literature which his ancient friends read, and enter into their public problems. He may relate the Roman not only to the past, but to the future, and see a glimpse of his descendants in the houses of Spain and Italy and the furnishings of the Renaissance and the French Empire. If he does these things while he is studying the Roman house, he will find it of vastly more importance and interest than he will if he takes each thing only in its chronological place; he can make the Roman house for the time being the center of his consciousness, reaching out not only backward but forward and in all directions to the contemporary countries touched by the Roman. More than that, he can carry the Roman problem of living into his own town, and see if his people in New England or Minnesota have solved the problems as satisfactorily, especially those of intimate private life in the outdoor part of the home.

Studied in that way the history of the home performs the two great functions of art history. On the one hand it gives the student a view of the human race as a stupendous organism growing out of an infinitely distant past into an infinite future, a vast drama with quite clearly defined acts, each in its own peculiar mood but all having similar dramatic tendencies and all made of the same stuff that we see around us today in the turmoil of changing scenery and costumes for a new act. On the other hand it stimulates his reactions to his own surroundings, clarifying his vision, refining his tastes, and improving the quality of our building and manufactures through creating a desire for certain good things which our ancestors have had.

You will say that this is a large order, and impossible to execute except very superficially. It is. But I want to suggest that there are two categories of superficiality. It is not only possible but usual for a college teacher to give his class a considerable knowledge of a restricted subject, even a satisfactorily deep

knowledge, so that the class can pass a stiff examination, and then send out his students with scarcely any of that knowledge really under the skin, a part of the living thought of them. The course was not superficial; the effect on the student was tragically so. If a student should not know an *impluvium* from a *cucina* but felt a friendliness for the Roman family, with its love of authentic imitations of antiques and its vast influence on the later life of Europe, and went home to see how he could arrange his living room and backyard to gain a bit of the old Roman's privacy with his flowers and fountains—then the result of the course would be of a less harmful type of superficiality than the academic.

The most difficult obstacle I have found to be not the number of contacts necessary for the purposes I have suggested—though that is difficult enough, in all conscience—but the lack of immediate acquaintance on the part of the students with actual objects discussed. When a student speaks of a Gothic chest in mahogany, the conclusion is not merely that he has not sufficiently read his textbook; rather it is that when he did read it, he did not see and feel with mental eye and hand the thing he was reading of. Any study of furniture will remain academic and lifeless unless the students may see and feel things similar to those they are studying. In the matter of architecture and gardens, the student may see about him actual stone and flowers, even actual examples of columns and arches; so that lantern slides will give him some sort of feeling of the buildings and grounds. Lantern slides are better than plates, for they make one look up at vaultings, etc., and give a certain effect of scale. But furniture and textiles are deceiving in pictures. If there is an adequate museum in the city, this difficulty of realization may readily be overcome; but without a museum there is no way out but through exhibitions.

These entail a great deal of labor and require a certain courage to divert energy from textbook information; but for effective education better less information in the head—it will soon be forgotten anyway—and more realization of eye and hand, for the experience of sight

and touch becomes a permanent part of the student. Certainly it will be impossible to have enough exhibitions in any year to cover the whole subject, and it will usually be impossible to reconstruct classical, Gothic or Renaissance rooms. The earlier periods will have to be taught by illustrations, books and lectures; but from the seventeenth century down there is enough material in most towns, a few antique specimens and many modern reproductions more or less accurate, to make possible effective exhibitions which will show the students actual objects, with their proper textures and colors.

There is no need of elaborate installation or great expense. If no small hall is available, even a class room may be made effective. If the room is small, we can take one period at a time, and it is not even necessary to separate dining room from living room, for the furniture can be grouped according to function. Perhaps a more lively sense of the individual character of the several centuries is given by showing them at once, and separating them by screens—simple framework eight feet high and as long as needed, filled with “compo board” and held upright by crosspieces nailed to the bottom. There is almost everywhere an abundance of early nineteenth century furniture, showing the effect of the French Empire and reflecting ancient Rome. And there is a great deal of “Colonial” furniture, which brought eighteenth century traditions of Europe into the first years of the nineteenth century in this country. In the larger cities there is also a good deal of seventeenth century oak and walnut in the homes of wealthy men who are ready enough to lend it for exhibition.

Beautiful reproductions of ancient hangings are made today by American manufacturers, who are glad to lend them for exhibition. These can be used decoratively, in connection with imaginary doors and windows. It is not necessary to tempt the public to hypercriticism by trying to make openings illusionistic; a frank acceptance of limitations disarms such criticism, and leaves the way clear for enjoyment of the actual effect.

Paintings of the periods, not necessarily of the first class, are to be found in most cities; but if they are not available, old prints are not difficult to find; and failing those, reproductions of characteristic works of the periods are always to be had for the asking, if they are offered for sale.

Old china and silverware are never lacking, and these with ancient laces and other decorative objects may be grouped with the things of their own period.

Even the Italian Renaissance is not impossible to illustrate with a degree of vitality far in excess of books and plates, if one will but seek through the homes and stores and borrow somewhat from manufacturers of modern reproductions.

Please do not think that I am speaking from experience in a museum. I have seen such exhibitions in a little town on the prairie of South Dakota, and I received a letter only a few days ago from the same town saying that the Art Club was arranging another such right now. Even in the Minneapolis Institute of Arts, many of our best exhibits have been borrowed from homes in the town; and last summer we had an exhibition of furniture, showing ancient and modern placed side by side for comparison, most of it borrowed from homes, from manufacturers, and from department stores. It required work, but it was worth it, for we have not yet ceased to hear of it from all over the country. Yet it was nothing but what most of you could accomplish, in some scale, in your own towns. It seems to me beyond argument that the effect of such exhibitions on the student is of more permanent value than a great deal of very forgettable art history.

A large number of people will visit such exhibitions without seeing them. The things by themselves will not function to any great extent, they need the academic knowledge which is so useless by itself. The students themselves will see and feel, particularly if they are required to write critically of the exhibition or of something in it; but the public will need additional stimulus. This may be given partly by gallery talks, and partly by adequate labeling. It is not enough to in-

dicating what each object is, and give its provenance and date; there should be some sentence to stimulate attention to the object. Sometimes the label may suggest derivation of design, sometimes influence of some other epoch or nation, sometimes it may call attention to the finish; but almost always it will prove most stimulating if it suggests a comparison of some sort with some other object in the collection.

Usually the first effect of an acquaintance with the art of the past is to raise a desire for examples of the early art or for authentic reproductions of them; but such a course as this ought to show the futility of attempting any exact repetition of antiquity, for eclecticism is seen to be a characteristic of decadence, and each age has its own qualities which bloom in forms of its own, developing out of earlier forms, and the march of civilization is only hindered when artist turns archaeologist. But we can aim to give the student a vision of the unity of history, in which he is an actor, give him pleasant acquaintances in many ages along the way, and develop within him a sensibility to the beauty, or lack of it, in his own surroundings.

REVIEWS

THE FOUNDATIONS OF CLASSIC ARCHITECTURE. BY HERBERT LANGFORD WARREN.

Pp. xiv, 357. Illustrated from documents and original drawings.
The Macmillan Company, New York, 1919.

This handsome volume, printed on thick glossy paper, with only a few misprints (pp. 119, 143, 150, 261, 284, 327), contains five chapters, which discuss Egypt, Mesopotamia, Persia, the Aegean, and Greece (The Temple, Greek Mouldings, The Doric Order, Origin of the Doric Style, Periods of the Doric Style, The Doric Temples of the Archaic Period, The Doric Temples of the Period of Full Development, The Ionic Style and The Ionic Order, The Culmination in Attica). The introduction, by Fiske Kimball, tells us that in this work of the former dean of the faculty of architecture of Harvard University, left in manuscript at his death, is presented in enduring form the essence of his vital teaching of the history and principles of architecture. There are quotations from Warren's essay on the study of architectural history and an account of his life and achievements as set forth in the minute recorded by the Harvard faculty and in other tributes, and finally a brief resumé of his writings and their culmination in this book.

The book is stimulating and gives a very good general account of architecture down to the time of the Erechtheum, but unfortunately stops there and does not even take up the wonderful Hellenistic works of architecture such as the great Asia Minor temples and other buildings at Pergamum, Priene, Sardis, Ephesus, Didyma, etc., to say nothing of the Etruscan and Roman elements which belong to the foundations of classic architecture. Unfortunately, there are only 119 illustrations and many of those used, such as that of the temple at Corinth (p. 234) and those of the Erechtheum before the west wall and other walls were replaced (pp. 340, 347), have long been antiquated. It is hardly true, at least for Greek architecture, that the

body of authentic documents here reproduced is unequalled in any general work covering the same field, (cf., for example, Sturgis, *History of Architecture*, vol. 1), though, to be sure there is yet no first-rate scientific history of Greek architecture in English as good as Durm's *Baukunst der Griechen*, and that despite the fact that American architects in the last twenty years have carried on the most important researches concerned with the buildings of the acropolis and its sides.

There are many little errors in the book which should have been read in proof or manuscript by some archaeologist with first hand knowledge. P. 136 we hear of bronze heads on the lions (rather lionesses) at the famous lions gate at Mycenae, that they and the bodies were gilt, that the relief was low. P. 137, the number of beehive tombs known is far in excess of twenty-five, and they exist from Thessaly (rather than Boeotia) to Crete. It is not true that each beehive tomb (p. 138) has a rectangular side chamber; I know of only two such. There is no evidence that the triangular opening above the doorway of the "tomb of Agamemnon," as the so-called "treasury of Atreus" is here termed, was closed by an enriched bronze plaque (p. 139). The Heraeum at Olympia (pp. 147, 176) is no older probably than the oldest Argive Heraeum excavated by the Americans and not mentioned by Warren. It, too, had wooden columns and marks the transition to the Doric style. The cella of the early temples is unlike the megaron (p. 147) at Tiryns but not unlike the Thessalian megaron. The crepidoma has usually three steps, of which the topmost is the stylobate, sometimes, especially in Sicily, more, but not two (p. 161). Even the so-called Theseum has three steps, not two, as some of the older books say. P. 235, Powell's plan of the temple at Corinth (*A. J. A.* IX, 1905, pp. 44f) supersedes Dörpfeld's which is reproduced in figure 72. P. 261, read Amasis for Amosis. P. 266, figure 84 from Furtwängler and Ulrichs, *Greek and Roman Sculpture* (English edition by Taylor, 1914) is attributed to Furtwängler's *Masterpieces of Greek and*

Roman Sculpture. P. 282, figure 90, the name of the excavator of Miletus is Wiegand, not Weigand. P. 284, the temple of Cybele at Sardis should be the temple of Artemis, and figure 91 is upside down. P. 304, long before the Romans Pericles and later Antiochus had reared a temple on the foundations of the Olympieum. P. 305, G. F. Hill should be B. H. Hill, the director of the American School in Athens. P. 307, and p. 301, with reference to the plan of the acropolis at Athens, the new location for the monument of Nicias discovered by Dinsmoor (*A. J. A.* XIV, 1910, pp. 459f) should be given. P. 309, the Erechtheum is wrongly said to have been used as a harem and the Parthenon to have been destroyed in 1686. The date was September 26, 1687. P. 310, the horses of Poseidon are given to Athena. P. 311, the west wall of the Erechtheum was not overthrown by a bombardment between 1824 and 1832, but by a windstorm of 1852, which also threw down one of the columns of the Olympieum. P. 323, the rear chamber in the Parthenon was called Parthenon because it was the chamber of the Virgin Goddess, Athena Parthenos, not because it was a virgin's chamber (cf. *Arch. Anz.* 1894, p. 122). P. 333, the acroteria of the Parthenon have been reconstructed from fragments, (cf. the British Museum publication of the *Sculptures of the Parthenon* by A. H. Smith). Pp. 342, 343, J. R. Wheeler becomes G. R. Wheeler.

There are also many theories with which not all students of Greek architecture would agree. The Doric column is supposed to have a stone origin but the Ionic column a wooden prototype; and the statements about the origin of the Doric entablature do not take into account the different articles on the subject, such as Holland's in *A. J. A.* XXI, 1917, pp. 117f. It would have been well to cite some of the books on the origin of the Doric and Ionic columns, such as Puchstein, *Die Ionische Säule*, and Lichtenberg *Die Ionische Säule*, both published in 1907 but with opposite theories. On the whole, however, the book is a very good and readable account of the main characteristics of architecture down to 400 B. C.

David M. Robinson.

NOTES

MINUTES OF THE NINTH ANNUAL MEETING OF THE COLLEGE ART ASSOCIATION OF AMERICA

The Executive Committee met at the Hotel Euclid, Cleveland, Ohio, April 1, 1920, at 11 A. M. It was voted that the College Art Association discontinue chapter membership in the American Federation of Arts.

The Association met for the addresses of welcome, the reports of committees, and the reading of papers at the Cleveland Museum of Art, April 1, 1920, at 2 P. M.

The Secretary-Treasurer reported a balance on hand of \$117.42. Upon the approval of the Auditing Committee the report was adopted.

The Committee on Membership told of the progress made during the year: besides the large number of library subscriptions to the Art Bulletin, a small number of individuals had been attracted by the scheme of Christmas gift cards; the most successful work, however, was that done through private solicitation.

The Committee on Books for the College Art Library reported that its work was nearly ready for publication and that the Fogg Museum was prepared to issue the Committee's book list as one of the museum publications.

The Committee on Reproductions for the College Museum and Art Gallery stated that the international situation necessitated the delay of its undertaking.

The Committee on Research Work and Graduate Teaching in Art submitted for criticism a summary of the purposes of the investigation it is conducting. A complete report will be presented at a later meeting.

The Committee on Exhibitions reported that although there had been considerable interest shown in its labors and a voluminous correspondence had resulted the actual call for exhibitions had not been great enough to warrant the continuance of the Committee's efforts.

The Committee on Publicity expressed its conviction that good newspaper and magazine notices would be effective in securing members but that the employment of professional publicity agents, such as the Anson Company, would not be so satisfactory as the appointment of a vigorous committee to work uninterruptedly throughout the year.

The Association met for business and the election of officers at the Cleveland Museum of Art, April 3, 1920, at 4 P. M.

A constitutional amendment providing for life membership was adopted.

An appropriate resolution thanking those whose combined efforts had made the ninth annual meeting a success was presented by the Committee on Resolutions and adopted by the Association.

With the advice and consent of the Committee on Books for the College Art Library, the Committee on Publications presented a recommendation that the book list under preparation be published as a number of the bulletin of the College Art Association. The Executive Committee recorded its endorsement and the publication was voted by the Association.

In accordance with the report of the Committee on Nominations the following officers were elected by acclamation:

President: David M. Robinson; Vice-president: Paul J. Sachs; Secretary-Treasurer: John Shapley; Directors: Edward Robinson and Frank J. Mather, Jr.



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